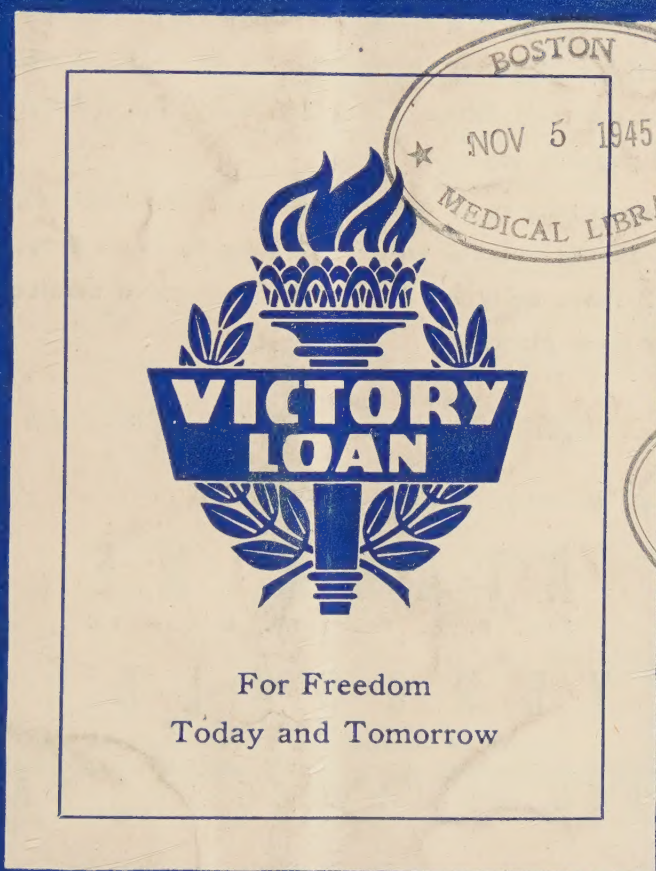


MEDICAL RECORD



October 1945

Vol. 158, No. 10

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Studies on Problems of Alcohol

The Research Council on Problems of Alcohol, an associated society of the American Association for the Advancement of Science, has issued its first report which covers the period, 1939-1944. A summary is presented of research projects completed, and reports of the progress which has been made. It includes the results of a critical survey of the literature on the effects of alcohol on the individual, which was conducted by the New York University College of Medicine, under the direction of Drs. Norman Jolliffe and E. M. Jellinek, also a study of the reactions resulting from the ingestion of alcohol for the ultimate purpose of discovering how a craving for alcohol is established, which was conducted by the Phipps Psychiatric Clinic of Johns Hopkins University, with Dr. Curt P. Richter in charge.

The toxic factors in alcoholism were investigated at the New York State Psychiatric Institute, under the direction of Dr. George A. Jervis. Other studies were made on the personality of the alcoholic, conducted by the Department of Psychiatry, College of Physicians and Surgeons, Columbia University, under Dr. Nolan D. C. Lewis; conditioned reflex type of treatment conducted by the Milwaukee Sanitarium, under Lloyd H. Ziegler and Josef A. Kindwall; a preliminary study of alcohol and industrial efficiency and the rôle of alcohol in cirrhosis of the liver. Surveys of facilities for the treatment of alcoholism were conducted by the American Hospital Association for the United States and by

the New York Academy of Medicine for New York City and vicinity, and an outline of the findings have been presented.

Dr. Anton J. Carlson, Chicago, president and scientific director of the Council, in a foreword to the report, says that it seems highly probable that many individual and social factors contribute to chronic alcoholism. He is convinced that much in human nature and in human behavior, significant for the prevention of alcoholism, is "still among the unknowns but not among the unknowables". Other members of the Council are: Ogden Woodruff, M.D., chairman of the Board, professor of clinical medicine, Columbia University; Karl M. Bowman, M.D., chairman, scientific committee, professor of psychiatry, University of California; Lawrence Kolb, M.D., secretary, medical director, department of corrections, State of California; Samuel Thorne, treasurer, attorney-at-law, New York, N.Y.; Harry H. Moore, Ph.D., executive secretary.

The program of research of the Scientific Committee of the Council includes two major lines of approach, namely, the suggestion of problems and plans for research on the causes (biological and social) of alcoholism in man, and the establishment in medical school hospitals of research centers with facilities for diagnosis and treatment, each with an outpatient department, where competent scientists may approach the study of alcoholism in man, utilizing the resources of medicine, public health, physiology, nutrition, psychiatry and psychology.

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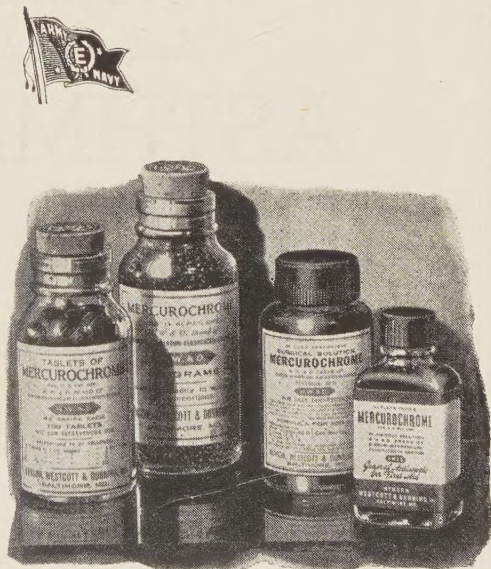
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Open Forum

Digitalis and Coagulation of the Blood

To the Editor.—

In the *J.A.M.A.*, August 4, 1945, page 1016, is published an interesting paper of considerable practical importance entitled "The Effect of Digitalis in Myocardial Infarction," by Dr. John Martin Askey and Dr. Otto Neurath. Unfortunately, the authors inadvertently omitted the reference to the first work done on the subject. Therefore, in the interest of historical accuracy and of scientific integrity, I am sending you herewith a brief résumé concerning the literature dealing with digitalis and the coagulability of the blood because I believe this discovery marks the beginning of other investigations along the same lines with therapeutic agents which may lead to grave clinical accidents.

On June 11, 1942, Dr. David I. Macht announced for the first time the findings on the subject before the Section on Pathology and Physiology at the annual meeting of the American Medical Association in Atlantic City. At that meeting the author announced that he found in laboratory experiments on animals that both digitalis and ouabain progressively shortened the coagulation time of blood taken from rabbits and cats. He also announced that experiments on coagulation in vitro revealed that all kinds of digitaloid bodies accelerated coagulation time, while control experiments with many other glucosides and various other drugs did not produce this phenomenon.

Dr. Geza de Takats and Dr. N. C. Gilbert came to the meeting of the Section on Physiology especially to hear Dr. Macht's paper and they publicly complimented him on his discovery and asserted that this observation of his was the most plausible explanation of a problem which had been perplexing them—namely, sudden deaths in clinical patients who were under full digitalis treatment.

Dr. Macht's paper was published in the *Annals of Internal Medicine* in 1943 and two other supplementary papers by him appeared in the transactions of the American Therapeutic Society and in the *Southern Medical Journal*. In the last named communication Dr. Macht predicted that other drugs employed in therapeutics would probably be found to affect the coagulability of the blood and in this way might prove to be dangerous. He also announced that he was working on certain mercurial compounds of great importance in that connection.

Following Dr. Macht's work, S. C. Werch, working under the guidance of Dr. Gilbert, repeated and confirmed Dr. Macht's work, and still later de Takats, Trump, and Gilbert published another paper corroborating Dr. Macht's original observations. Finally, Massie and his coworkers, in September, 1944, published still another paper in which Dr. Macht's observations were confirmed on a series of clinical patients. In the *J.A.M.A.*, May 5, 1945, Professor Volini and his collaborators published a paper on "Sudden Death Following Mercurial Diuresis", in which on page 16 of that issue they made the first announcement of Dr. Macht's work on the thromboplastic properties of some

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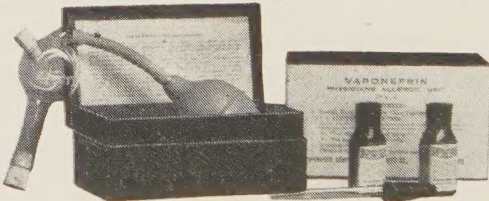
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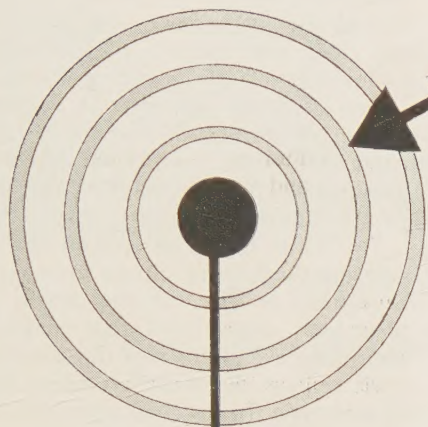
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mercurial diuretics concerning which he wrote a personal communication to Dr. Volini on May 10, 1944. A full paper on the subject is now on the press

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David I. Macht, M.D., F.A.C.P.
Laboratories of Sinai Hospital,
Baltimore, Md.

The Swiftwater Biological Laboratories of The National Drug Company of Philadelphia, have been informed by Under-Secretary of War, Robert P. Patterson, that they have won the Army-Navy Production Award for the second time. This second award adds a white star to their "E" pennant as a recognition of continued excellence in war production.

Kidney Stone Prevention

Dr. Ephraim Shorr, of the Cornell Medical School, reports in the current issue of the *Journal of Urology*, on two interesting types of therapy for the prevention and elimination of kidney stones. In brief, two measures are discussed by Dr. Shorr which consist in the use of estrogens and aluminum hydroxide gel of the amphojel type (Wyeth Incorporated) to bring about specific alterations in the chemical composition of the urine. The theory behind Dr. Shorr's use of these two therapeutic measures is that estrogens, by increasing the citric acid content of the urine, and aluminum hydroxide gel, by reducing the phosphate content, should serve to prevent the precipitation of kidney stones, specifically those of the calcium phosphate, calcium carbonate, magnesium phosphate, magnesium-ammonium phosphate and calcium-magnesium-ammonium phosphate types.

Dr. Shorr is of the opinion that estrogens, by increasing the urinary citrate excretion, reduce the concentration of the calcium which produces calcium phosphate stones, and that amphojel, by diverting phosphate excretion from the urinary to the intestinal tract, reduces the phosphate which forms kidney stones of that type. In his conclusion, Dr. Shorr warns, however, that in spite of the interesting clinical facts drawn from his experiments, too brief a trial has been made to permit conclusions as to the actual effectiveness of these measures in the prevention or recurrences of further kidney stone growths. He presents the report merely to stimulate wider exploration of the utility of estrogens and aluminum hydroxide gel and to expedite their evaluation in the prevention of kidney stones.

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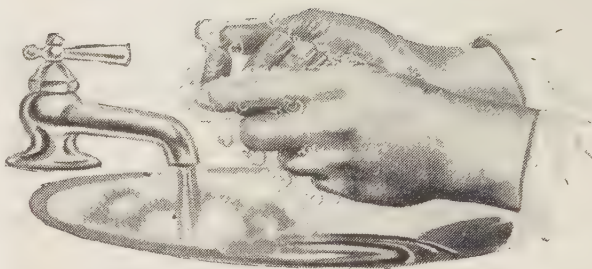


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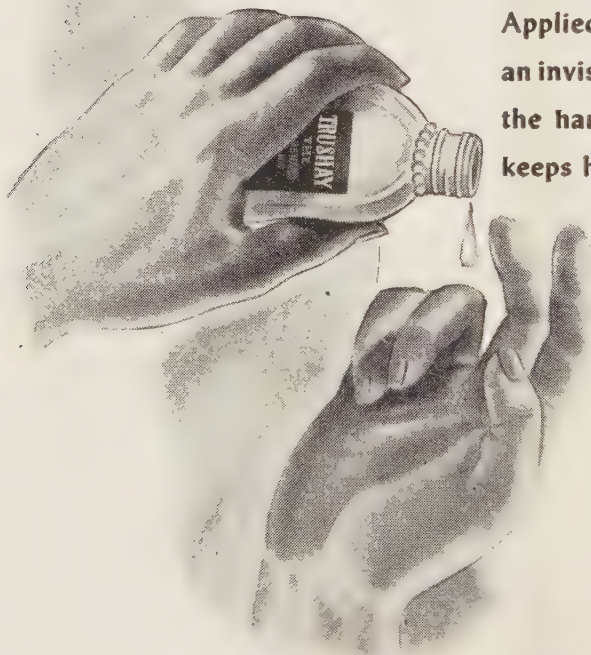
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Report on Voluntary Health Work

Recommending the revitalization or strengthening of the voluntary health agencies of this country, the National Health Council, an affiliated group of eighteen health organizations, has issued a report entitled "Voluntary Health Agencies—An Interpretive Study" by Selskar M. Gunn and Dr. Philip S. Platt. The report, supported by a grant from the Rockefeller Foundation, involved field work and research for three years on 568 voluntary agencies in sixty-five cities and twenty-nine states. The purpose of the study was to ascertain the present scope and effect of the work of the twenty thousand voluntary health agencies in the United States, and to determine how greater effectiveness could be obtained in their respective areas. These agencies (exclusive of the Red Cross) at present have budgets of some fifty million dollars a year and enlist the active support of over three hundred thousand board members and professional advisors, as well as an even greater number of volunteer workers.

The results of the study emphasize the fine record of achievement of these agencies and credit them with much of the progress in public health during the twentieth century. It asserts, however, that their independent and uncoordinated attacks upon specific diseases, without central or unified planning, have often resulted in confusing the public as to the goals of individual and public health. Organizational deficiencies on the local level have detracted from the effectiveness of the work, have made for occasional duplication of effort and conflict between agencies, with resulting lack of balance in meeting emergent needs. The study

emphasizes also that their separate and competitive appeals for support have brought, with a few striking exceptions, inadequate results, and that the funds available to the different agencies have often little relation to actual community health needs.

The major recommendations of the Gunn-Platt report deal with suggestions for the improvement of the efficiency of the local agency and its more complete coordination with the activities of the national organizations. Such revitalizing of the local voluntary health agencies, it suggests, can be accomplished by:

1. An analysis by each agency of its present goals, activities, functions, methods and relationships.
 2. The strengthening of executive and board membership by each agency.
 3. The organization in each town or city of a Health Council, representing all related local agencies, to effect coordinated health planning.
 4. The simplification and unification of appeals for public support.
 5. The transfer of appropriate activities to the official public agencies and the recognition of the primary position of leadership of the official agency.
- The study was conducted under the direction of an executive committee composed of the following members: Louis I. Dublin, Ph. D., chairman, second vice-president and statistician, Metropolitan Life Insurance Company; Reginald M. Atwater, M.D., executive secretary, American Public Health Association; Ira V. Hiscock, Sc.D., Yale University; Bleecker Marquette, Public Health Federation; and Emilie G. Sargent, R.N.

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Health Program in U.S. Zone of Germany

Plans for public health control in the American Zone of Germany, which will be coordinated with Russian, British and French groups to insure unified policies, were described recently by Brigadier General James S. Simmons, chief of Preventive Medicine of the Surgeon General's Office, who went to Germany with Colonel Thomas B. Turner, director of the Civil Public Health Division of the Army Medical Department. General Simmons assisted in setting up a new division of public health to function as part of the Allied Control Council as the responsible agency for the control of public health in the American Zone. Major General Morrison Stayer, formerly Chief Surgeon in the Mediterranean area, will be in charge of this new division. The Army's Civil Public Health work in Europe was organized under Major General Warren F. Draper.

The new Division of Public Health of the U.S. Group Control Council is responsible for an orderly and effective health program in the U.S. Zone of Germany so that no focal point will develop to form a potential for epidemic diseases. In spite of the widespread disorganization and dispersing of populations during the stress of war, epidemics have been kept to a minimum, General Simmons said, as a result of tremendous advances in military medicine and techniques, and also because of the closely coordinated efforts of agencies concerned with the health of our troops abroad. He offered as an example of effective epidemic control in Europe, the program set up to prevent the spread of louse-borne typhus which increased rapidly in Germany as prisoners began to leave concentration camps and prisons.

Health missions, dispatched from SHAEF to work with governments to restore public health facilities and to see that medical supplies had been made available, had been tremendously influential in helping to set up public health programs and had also served to stabilize health control work over the continent. The production of vaccines is now being stepped up in various European countries and nutrition teams have been sent out to survey the food situation.

Proposed Bill to Control the Sale of Sleeping Pills

State Senator Thomas C. Desmond announces that he will introduce at the next session of the New York Legislature a bill designed to decrease the number of deaths from the use of "sleeping pills". Deaths from the use of these drugs had increased greatly during the past few months, he said, and now averaged about twenty a month in New York State alone. The four points in the proposed measure are as follows: 1. In addition to other data already required, pharmacists should plainly label the package containing barbiturates with the name of the patient. Possession of the drug, or its container by anyone else would be illegal. 2. Prescriptions for the drugs could not be refilled except with the consent of the prescribing physician. 3. Pharmacists would be required to keep a record of all sales, as well as all purchases from distributors. 4. Wholesalers would be required to record the amount of barbiturates bought from manufacturers and sold to retailers.



This, too, will be written in history



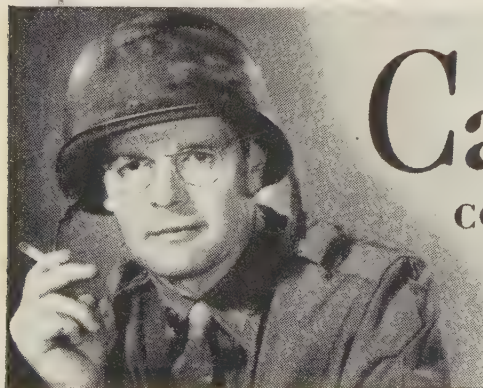
Among the many brilliant originations, the inspired improvisations, of the Medical Corps in World War II was the use of the "ambulance on wings."

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tion, and all the companion advancements of wartime medical science, 97 out of every 100 such casualties *lived!*

Thanks should be proffered most generously to the incredible diligence of those "soldiers in white" who created and tirelessly practiced these techniques—the medical men in the service whose rest all too often was no more than a moment and a cigarette. Incidentally, that cigarette was very likely a Camel, an especial favorite of all fighting men.

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United Medical Service Plan

Confirming the intention of the physicians of Greater New York to support the new "all-coverage" plan of medical care insurance, announced by United Medical Service, Inc., the following statement was issued on September 5th by Dr. William B. Rawls, chairman of the Coordinating Council of the five county medical societies of Greater New York.

"When United Medical Service was introduced to the people of New York City last January, the chairman of the Coordinating Council of the Five County Medical Societies promised on behalf of the doctors that an effort would be made soon to introduce a comprehensive medical care insurance plan. Now this promise is being fulfilled.

"The all-coverage plan of United Medical Service is truly a pioneering venture in medical insurance. It is broader than any other community program now in effect in the eastern United States. The medical profession of New York City strongly supports the principle of voluntary medical insurance and welcomes this plan as a major step in the profession's effort to make good medical care available to all the people through voluntary insurance plans. The physicians are glad to take part in this initial undertaking of a general coverage contract with every hope that through the combined efforts of the United Medical Service, the public and the medical profession, this plan may prove successful and be extended to all who may want it."

The new plan, as outlined in a statement by Rowland H. George, president of United Medical Service, comprises a group plan for the provision of medical, surgical, and maternity care, including aftercare, in the home and doctor's office, as well as in the hospital. Specified payments will be made also toward the services of qualified specialists.

The expanded service will be limited to a maximum enrollment of twenty-five thousand persons "until further expansion is justified on the basis of actual experience". Full coverage will be provided to families with incomes up to \$2,500.00 or individuals earning up to \$1,800.00 annually.

Penicillin in Treatment of Leprosy

Some remarkable results from experimentation with penicillin in the treatment of leprosy have been reported by Dr. E. Van Der Kuyp, government physician who has been conducting the experiments at the Curacao Leper Hospital at Zaquito, according to a dispatch from the Official Netherlands and Netherlands Indies News Agency, Willemstad, Curacao. Since only small quantities of penicillin were available, Dr. Van Der Kuyp said, the experiments repeatedly had to be interrupted, but even so, the results were surprisingly encouraging. The incidence of leprosy, always high in Curacao, has lessened greatly, lepromata have been vastly decreased in active cases, and old wounds have been healed, the government doctor reported. While the end results can not yet be determined and the maximum doses are not yet fixed, it is known that considerable quantities have to be distributed over a long period of time. If penicillin is not definitely a specific for the treatment of leprosy, he added, it certainly halts secondary infections, relieves suffering and increases the possibility of recovery.



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Letters of Fielding H. Garrison

SOLOMON R. KAGAN, M.D.

Boston, Mass.

Dr. Fielding H. Garrison, Lieutenant Colonel, M.C., U.S. Army, died on April 18, 1935. He left a splendid literary heritage in the field of medical history. He was one of the most industrious writers on the history of medicine and was also a brilliant correspondent, many of his letters being remarkable both as literary works and material for history and bibliography.

Dr. Garrison enriched the field of medical history and bibliography, not only directly by his publications, but also indirectly by acting as a source of information to other historians. He was instrumental in the publication of Sudhoff's *Essays in the History of Medicine*, published in 1926, and Max Neuburger's *Essays in the History of Medicine*, published in 1930. He gave valuable assistance in the editing of these two books and wrote a foreword for each of them. Not only did he translate essays from the German for these works, but he also contrived to select the best essays for translation, selecting the translators, and making important improvements in the translations presented to him for correction.

A number of selected letters written by Dr. Garrison to Dr. Victor Robinson, editor of *Medical Life*, New York, in relation to these two books are presented. They reflect Garrison's devotion to his favorite subject, his ability and sagacity, his magnitude as a leader, a teacher and an editor.

These letters were all written from the Army Medical Museum, Washington, D.C., except two from Oak Bluffs, Martha's Vineyard, Mass., and two from the Welch Medical Library, Johns Hopkins University, Baltimore, Md.

Letters to Dr. Victor Robinson

March 10, 1922

Dear Dr. Robinson:

In reply to your letter of March 4th, I do not know whether the second volume of Neuburger's *History of Medicine* will be printed by the Oxford people but I will ask him when I write and will let you know in due course. I rather fancy that the translation and the publication of this second volume have been and will be impeded by the events of the recent war in England. Whether it would be advisable to do it over here is difficult to say. The second volume dealing with mediaeval medicine is very erudite and would probably be read by only a few interested in the Middle Ages. I do not know that Neuburger is working on the third volume which is to deal with medicine more or less up to the modern period. He has already published several sketches toward this end such as his two books in the Old Vienna school. As soon as I can ascertain from him what his plans are, I will let you know. Please don't forget to return his review. Many thanks for your paper on T.B.

Very truly yours,

F. H. Garrison

Dear Doctor Robinson:

Jan. 9, 1925

Thanks for your two letters. I am glad to know the translations can be made, and think your decision about the big history is wise. I have just finished the *Index Medicus* job and will resume the translations next week. I am leaving for New York tonight on business, and will try to look you up if I can, but shall be probably taken up with affairs this brief stay. Meanwhile, whenever you get over here again, let me know. I will try to gather together some interesting items for your iconographic collections in the meantime.

Your sincerely,

F. H. Garrison

Washington, D.C., May 16, 1925

Dear Doctor Robinson:

The enclosed is by Dr. Ruhräh. In retyping it, will you please put the German titles of book down below as footnotes. Revision of the Panebaker translations is slow work, but I have hopes of getting them in by the first of the month, but Ruhräh, is doing three outside articles, Krumbhaar two in the *Skizzen*, Allemann some and so on. We shall have to be patient. If you can get Panebaker to do the other long one on "A Museum of Medical History," I think I can get the rest done around here. It will be an attractive, variegated volume, with the superadded material, but all the translators seem to miss the inwardness of Sudhoff's idiom, and considering the amount of work I have had to put in on it, never, never will I permit myself to attempt anything of the kind again.

With best regards,

Sincerely yours,

F. H. Garrison

May 22, 1925

Dear Doctor Robinson:

The status of the Sudhoff MSS. is about as follows: Dr. Hemmeter's eyesight has failed him, Dr. Krumbhaar is en route to Europe, so that the MSS expected from them, viz., Salerno and Goethe and John Müller, are rather hung up in the air. The others from Ruhräh, David Riesman, et al., will, however, materialize shortly. I would therefore suggest that we leave things pending until June 15th at the latest, when I shall wait no longer. Meanwhile, if you want to start printing the separate essays in the earlier part of the book, as the run in the table of contents, it would do no harm. I have revised parts of the Galen and Schools of Physicians, but cannot complete them until I have got through one or two odd jobs on my hands, but hope to do so in a few days. Sudhoff wants to include a brief sketch of Julius Preuss and one other Goethe article, but these are fortunately very short. Wise men say that it would be of little advantage to have the book come out in the dog-days anyhow, as the doctors are all away and would have a keener interest in the fall, after vacation. I mailed the foreword a few days ago and have just seen Sudhoff's foreword to Dr. Hemmeter's book.

With best regards,

Yours sincerely,

F. H. Garrison

P.S. Sudhoff proposes the simple title "Essays." Please, then, give me your slant on the following

Essays

by

Karl Sudhoff, M.D.

With foreword and biographical introduction

by

F. H. G.

P.S. He is no longer officially a "Prof."

July 21, 1925

Dear Doctor Robinson:

Thank you very much for the journal containing your paper. It is most interesting and you have done about all that could be done with the drab material of a drab and uninteresting period. I enclose two of the MSS. and should be obliged if you would check on the typewritten copies before they go to the printers. I will gladly take your word for it, as I have so much neglected private and other business on hand before I go away again that I don't see how I can find time to do much more.

Better send the Allemann, Krumbhaar, and Neumann proofs to me, but duplicates to all others outside of Washington, as it will save correspondence and administration. If the translators take any exception to my versions or find any errors I don't find, you can settle that out of hand. Ruhräh is going to Europe and I can read his proofs also. What I want to sidestep is—extra correspondence—e.g. with J. C. H.

I will mail two Italian portraits to you tomorrow. You will find a number of very interesting ones in *Wiener (Med. Wochenschrift)* Nos. 22-23, May 30 and June 6, 1925), well worth adding to your iconography.

With best regards,

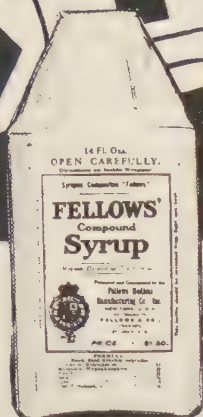
Yours sincerely,

F. H. Garrison

(To be continued)

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MEDICAL RECORD

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OCTOBER 1945

WHOLE No. 2753

CARCINOMA OF COLON AND RECTUM*

GEORGE I. MILLER, M.D., F.I.C.S.

Brooklyn, N.Y.

Carcinoma of the colon can occur in the cecum, ascending colon, hepatic flexure, transverse colon, splenic flexure, descending colon, and sigmoid; also in the rectum and anal area. The colon is a reservoir for digestive waste and bulkage until it can be conveniently eliminated. It also delivers to the body water that has been imbibed and poured into the small intestine during digestion. The absorption of minerals, sugar, salt, and drugs takes place from the large intestine.

The material in the cecum and ascending colon is of liquid and mushy consistency. The more distal part of the colon develops more solid substance. Dry hard feces may be found in the rectum. The specific gravity of feces is near that of water. The colon and its content literally float in the abdomen. Mucus is the chief constituent of the secretion. It serves as a lubricant to the feces and as a protective agent to the lining of the large intestine. The mucus is not a product of inflammation; it is a normal secretion. The colon plays an important rôle in bodily metabolism. Interference with proper elimination may cause severe metabolic disturbances. Fortunately, obstruction of the colon is induced slowly, particularly in neoplastic disease.

The ideal surgical management of carcinoma of the colon is the radical removal of the lesions without diverting the contents of the colon by permanent colostomies. The proctologist is able to visualize that portion of the colon, the lower thirty centimeters which are sometimes difficult to examine roentgenographically, and to determine by its gross appearance, whether or not the lesion is malignant. Roentgenologists now definitely determine the location and nature of the colonic tumors. X ray visualization by barium enema of the colon is a routine procedure; its diagnostic value is increased by direct gradual insufflation of the colon with air by means of the Buckstein air insufflator, after the preliminary evacuation of most of the barium suspension. By slow air distension of the colon, distress is minimized and a maximum retention of the injected air is insured.

Small polyps, as well as malignant tumors, can be shown by this double contrast procedure which other-

wise might escape observation. Biopsy examination by the pathologist reveals the grade of malignancy and thereby may influence the type of operative procedure to be employed. Adair pointed out that each tumor has metastatic habits and deposits, each cancer having its own life history, its tricks and "personality" varying with age and cellular content. Many times these "sparks" which result give a clue to the primary lesion, so that by reasoning in reverse a diagnosis can be correctly reached. Unexplained profound anemia suggests carcinoma of the cecum and the right half of the colon. Patients themselves, at times, discover a lump in the cecal area.

Pepper expressed the opinion that an inherited recessive character affects metastasis and localization. Metastasis was referred to by Hippocrates and Galen. Carcinoma of the intestine may not cause metastasis for several years. There may be simultaneous occurrence of different types of cancer in various parts of the body, as that of adenocarcinoma of the lesser curvature of the stomach and medullary cancer of the pylorus, each a distinct type and each metastasizing separately. The mesocolic nodes lying between the layers of the mesocolon drain from the cecum, the ascending and transverse colon, as well as the upper portion of the descending colon. The transverse mesocolic nodes unite with those of the great omentum. Nodes of the descending colon connect with nodes of the sigmoid and rectum.

The accepted theory that cancer arises from one cell which divides and increases by geometrical progression should be discarded. It now appears that many tumors arise from multiple foci of neoplastic change, immediately adjacent to each other. These foci coalesce as growth occurs and the mass is seen as a single tumor. The pathophysiological background of neoplastic disease reveals that malignant tumors have a number of etiological relationships when they occur in one individual. Multiple cancers, double and even triple primaries in one person, are frequently observed in various parts of the body. Such lesions are not rare in the rectum and colon, particularly in association with polyposis. The occurrence of two separate and distinct malignant tumors in the same individual, either in the same organ or in different tissues at the same time or at a later period, has been

*Read before the Clinical Society of Unity Hospital, Brooklyn, New York, Dec. 13, 1944.

observed and recorded. Billroth reported the first cases of multiple carcinoma in 1879. In recent years many instances of the coincident development of carcinoma in various parts of the same organ have been recorded by Warren and Gates; Hamlon, Hurt and Broders; Stalker, Phillips, and Pemberton; Burke, Schreiner and Wehr, and Bugher.

The presence of one cancer does not confer immunity; on the contrary, patients with one cancer are more susceptible to the disease than are persons who have never had a cancer. Heredity may play a part in the occurrence of these multiple tumors. Physicians are accustomed to ascribe the occurrence of a new tumor in a known cancer case to a recurrence of the original lesion. These opinions, rooted in impressions, are valueless when we see a patient with squamous carcinoma of the upper esophagus and colloid carcinoma of the rectum. The victim obviously has two cancers and is not a subject of transcendental metaplasia. The gastrointestinal tract is most commonly affected by multiple tumors in single organs, the colon being most frequently involved. Our factual knowledge of the etiology of carcinoma of the large bowel is nil. The only relationship known in regard to multiple tumors of the colon is that of polyposis. This disease has long been known to be associated with carcinoma of the colon.

Rose M., aged sixty-five, was operated upon twenty-eight months ago for carcinoma of the transverse colon, the tumor being completely resected. Twelve months ago another carcinomatous growth appeared in the lower part of the sigmoid with mesenteric glandular involvement and nodules in the liver. Colostomy was performed. The patient died three weeks ago. Her brother and a sister died from carcinoma of the colon; neither had been operated upon.

M. S., a man aged fifty-five, developed a growth, quarter of an inch square, on the left cheek near the nose. Radium had been applied and seemed to have cured him. A year and a half later carcinoma of the transverse colon developed; he refused operation and died within six months. His brother, three years before, at the age of sixty was operated upon for carcinoma of the transverse colon. The growth was resected. Eight months ago his sister at the same age was operated upon for carcinoma of the sigmoid and has now a permanent colostomy. Wood and Darling recently published a study of a family in which, in four generations, six females had carcinoma of the breast and in four the condition was bilateral.

The hereditary factor in multiple tumors of the colon and other organs is recorded. Growths appear, when cancer patients are cured and survive long enough to develop another tumor. This calls for persistent follow-up of cancer patients. Anterior resection has the advantage over other surgical methods employed in the radical removal of malignant lesions of the sigmoid, in that the continuity of the bowel is reestablished and a permanent colonic stoma is obviated. The spread of carcinoma of the rectosigmoid usually is upward and the superior hemorrhoidal vessels may be sacrificed without impairment of the circulation to the rectosigmoid or rectum.

Preliminary to resection of a portion of the colon and anastomosis, the colon should be defunctionalized to dislodge its bacterial content. Contamination of the

operative field from the contents of the bowel is avoided. Peritonitis, intraabdominal abscess, fecal fistulas, or wound infection will be prevented. Various methods, tried in the past to render the colon relatively aseptic with cathartics, antiseptic enemas and drug instillations by way of colostomy, have failed to assure healing of the suture line and leakage.

In 1938, Sir Hugh Devine, in a published report, pointed out that a defunctionalized colon cannot be soiled because the fecal contents and its bacteria have been washed away to a minimal count so that the wound in the intestine is allowed to heal. E. F. Berman, of Baltimore, decontaminates any part of the large bowel distal to the first portion of the ascending colon by a temporary cecostomy or loop colostomy, preliminary to large bowel resection, especially in the presence of obstruction. After four or five days, when the bowel is firmly peritonealized, a double lumen enema tube, with an inflatable balloon attached, equal to a Miller-Abbott tube, is inserted into the colostomy proximal to the lesion, and the balloon is inflated with air to distend this portion of the colon. This creates an obstruction to the passage of feces from the bowel which is located between the balloon and the lesion. In this manner, any portion of the colon distal to the cecum can be defunctionalized prior to open resection. After operation, there is no tension on the suture lines and quick healing results. The anastomosed bowel is collapsed and at rest.

Early recognition of subjective symptoms in disorders of the intestine will save a patient from prolonged illness by prompt adequate radical care. In cases of recent and distinct change in bowel habits, an organic basis for the complaint must be considered as a probability. Unexplained loose stools after lifelong constipation may signify the development of a new growth in the colon. Anorexia, loss of weight, anemia, and blood or pus in the stools are indications which suggest a thorough search until an explanation of their presence is discovered. The functions of the intestine include liquefaction of food material, digestion, absorption, and motility. While the digestive and absorptive processes are going on, the intestinal contents progress constantly toward the rectum.

Right upper quadrant pain is common in colon disorders, but radiation into the right subscapular region indicates biliary colic. Pain arising in the large bowel usually is felt across the lower abdomen, but may be limited to any of the four abdominal quadrants or even to the low back. Errors in physical diagnosis are frequent and are chiefly errors of omission. Since a high percentage of rectal cancers are within easy reach of the examining finger, protoscopic examination of the rectum and lower sigmoid should be a routine procedure. The most common symptom of a single benign polyp of the colon or rectum is bleeding. Intermittent attacks of intussusception with severe pain are likely to occur. Carcinoma of the colon is now recognized with increased frequency, due largely to improvements in diagnostic technic. Twelve percent of all human organisms occur in the anus, rectum, and sigmoid colon. Eight percent of all intestinal cancers occur in this locality. Cancer may occur at any age, but is most common between forty and seventy years. A study of the literature disclosed over one hundred and fifty cases of malignancy of the rectum in patients under

the age of eighteen years and in some less than four years of age. Before operation, every patient must be carefully studied for existing defects in the various vital organs, the lungs, the heart, and the kidneys, to evaluate his powers of resistance. Operative risk and mortality and morbidity rates are more often dependent on these coincident factors than on technical surgical skill. A patient with cancer is usually chronically ill and must be considered a relatively poor surgical risk from the outset.

In this study attention must be focused on the problems of surgical care before the operation and the supportive measures used after the operation. Patients past early life often have arteriosclerotic heart lesions, pulmonary emphysema, impaired renal function and other degenerative disorders. Their reparative powers compare unfavorably with the healing powers of the young. A careful appraisal of the patient's status is therefore indicated. In patients with poor circulation, thrombosis, shock, and other postoperative complications are rendered major risks. Routine electrocardiography is imperative to determine the operative risk. A well chosen anesthetic is important.

The measurement of renal and hepatic function and determination of vital capacity as routine precautions will guide the surgeon. Diabetes, anemia, nephritis, prostatism, obesity, and perhaps sepsis are secondary pathological entities concomitant to cancer which demand special consideration in evaluating the surgical potentialities of the patient. Ravdin demonstrated that hypoproteinemia is an important inhibiting factor in wound healing, that edema develops at the suture line in enteroanastomosis, resulting in a lack of tissue fusion, and that wound eruption likewise is associated with this deficiency of protein. Hartzell, Winfield, and Levin noted that serum protein and ascorbic acid values in cases of wound disruption are decidedly lower than normal. High protein and carbohydrate and low fat diet maintains liver function and protects against anesthetic and toxic injury. A three thousand calory diet is necessary, consisting of seventy percent carbohydrates, twenty-five percent protein, and five percent fat, resulting in a nonketonic acid residue to favor healing.

In diseases of the colon and rectum irrigations of the colon with isotonic solution of sodium chloride are carried out the night before and repeated on the morning of operation until returns are clear. In obstructive growths of the sigmoid and the rectum insert an indwelling rectal tube beyond the obstruction, by means of a proctoscope, for several days for preoperative high colonic saline irrigations. One ampule of prostigmine methylsulfate should be given immediately before operation, and thereafter every two or three hours for four to six doses, to prevent postoperative intestinal atony and distention and bladder atony and retention of urine. For the relief of distention, some advocate the inhalation of ninety-five percent oxygen for a twelve hour period. Insert a rectal tube to relieve gas pains of lower intestinal origin. Enemas are best deferred for four or five days.

Tissue regeneration and cellular proliferation are enhanced by proper nutrition. Ice cream provides a proportioned base to which vitamins may be added. Repeated plasma or blood transfusions to raise the serum proteins to normal values are essential. Hart-

zell states that patients with malignant growths of the gastrointestinal tract have low vitamin C values. Crile states that parotitis after operation on the colon is due to insufficiency of vitamin A. For proper heart and neuron axis function and gastrointestinal tone, vitamin B appears essential for blood regeneration and as a coenzyme in the metabolism of dextrose. Patients with cancer, as a group, are both middle aged and suffering from inanition, therefore adequate preoperative preparation requires a reserve of vitamins before operation is undertaken. Clinical dehydration must be overcome to prevent acidosis or alkalosis. When fluid by mouth cannot be ingested, approximately 3500 cc of five percent dextrose solution is administered over several days to the 3500 cc daily metabolic requirement.

The Miller-Abbot tube serves satisfactorily in enterocollectomy for tumors of the right colon. It prevents distention if introduced a day or two before operation; it diminishes intrusion of the small intestine into the operative field. In the presence of an acute inflammatory reaction in the segment involved, resection and anastomosis should be postponed weeks or months. Temporarily a simple transverse or Devine colostomy should be performed. Adherent growths with superimposed infection or localized perforation, preliminary fecal diversion will facilitate later resection. Primary colon anastomosis by oblique resection of the bowel ends, insures adequate blood supply, the use of narrow bladed crushing clamps, interrupted fine silk sutures, employing the Kerr basting-stitch, add to the security of the anastomosed site. Five grams of sulfanilamide should be injected about the site of the suture to prevent peritonitis which is more likely to be due to gross leakage after closure than to the minimal soiling during the open anastomosis.

There should be proper nutrition and hydration, and blood transfusions before, during, and after the operation. Careful nursing and devoted attention to the patient will result in a lower mortality compared to the past multiple stage operations. Sulfasuxidine or sulfathalidine, as suggested by Firor, should be used as an adjuvant in large bowel surgery. An adequate blood supply to the zone of anastomosis is maintained by the careful preservation of the blood vessels in the mesentery supplying that zone. Place an accurate seromuscular suture to provide an adequate apposition of peritoneum on either side of the suture line, using a fine silk suture on a fine needle using a Lembert or Cushing type of stitch through the seromuscular layers, instead of suturing the friable mucosal layer. In the aseptic technics, the mucosal stitch is never used, reliance is placed solely on the seromuscular mattress sutures. The proximal segment of bowel is to be kept empty of gas and fecal content. In ileocollectomy introduce the Miller-Abbott tube a day or two before the resection; in transverse and left-sided colectomies perform a cecostomy a few days or a week before resection.

Today, the primary resection of the lesion is an established practice throughout a cross section of medical centers of our country. It is safer than the exteriorization method; it possesses a number of definite advantages. The patient is subjected to only one major operation, his hospital stay is shorter and he is

not distressed by abdominal evacuations. Wound infections are less since alloy steel wire sutures for the abdominal wall are used. Postoperative incisional hernia has become less frequent. The bowel and adjacent lymph glands can be adequately removed. It is now feasible to resect a low sigmoid growth with a short mesentery or an obese abdominal wall. Formerly, such growths did not permit a satisfactory Mikulicz operation. Patients were subjected either to inadequate removal of the tumor or to abdominoperineal section with permanent colostomy. For the advantage of primary resection with anastomosis, however, it is necessary for the comfort of the patient to do a preliminary or complementary cecostomy or transverse colostomy.

W. C. White and F. H. Amendola state the following advantages and disadvantages of closed resection of the colon: 1, the necessity of multiple operations and prolonged hospitalization; 2, distress and discomfort of abdominal fecal evacuations for a long time; 3, the questionable adequacy of removal of bowel adjacent to the growth with the mesenteric nodes; 4, the high incidence of infections with disruption, intestinal obstruction, persistent fecal fistula and subsequent incisional hernia.

Summary

1. Indications for locations, physiology, direct and reverse reasoning for diagnosis of carcinoma of the colon are given.

2. Changes in bowel habits, bleeding, anemia, abdominal pain, intestinal insensitiveness, obstruction of motility are cardinal symptoms in malignant lesions of the colon.

3. Inherited recessive character affects metastasis and localization.

4. Different types of cancer may exist simultaneously in various parts of the body.

5. Patients with one cancer are more susceptible to the disease than persons who have never had one.

6. Radical anterior resection is the ideal method in the removal of the malignant lesion of the sigmoid. Continuity of the bowel is reestablished and a permanent colonic stoma is obviated.

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820 ST. MARKS AVENUE

THE MECHANISM OF ORAL FOCAL INFECTION IN ARTHRITIS

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Inflammation of joints as a result of oral focal infections has been mentioned by many authors. Focal infection in the mouth cavity may produce disturbances in any part of the body by long distance action of bacterial toxins.

One important factor in the focal infection theory seems to have escaped medical research for a long time. It is the tendency of all oral infections to spread into the venous system, especially the jugular veins. I introduced the term bacterial phlebotropism to express the affinity of the microbes for the endothelium of the veins.

Many pathologists have proved histologically that acute infections from teeth and tonsils spread into the jugular veins and form there a secondary focus of infection in the form of latent jugular endophlebitis.

According to Beck (1) *Streptococcus viridans*, *Streptococcus haemolyticus*, *meningococcus*, *Staphylococcus albus*, *Staphylococcus aureus*, and an anaerobic bacillus have been found in this lesion in acute cases of jugular phlebitis. It is not as important to know the specific nature of the microbes as it is to recognize the soil on which they grow. Pasteur's remark at the

end of his life, "Claude Bernard was right, the microbe is nothing, it is the soil which is all important," has special importance in infections where the jugular vein is the soil, since phlebitis is the basis of septicemia.

Since it has been proved that oral infections feed into the jugular veins and are able to entertain an infection in the endothelium of the jugular veins, it is obvious that complete removal of primary oral foci in teeth and tonsils is of utmost importance. I agree with Rosenow's (2) statement, "In general it may be said that the appreciation of the importance of the principle of focal infection by clinicians is in direct proportion to the thoroughness with which it has been applied."

In 1938 (3), I described latent jugular phlebitis as the "missing link" in the focal infection theory, and have treated successfully hundreds of jugular veins in cases of arthritis and other rheumatic diseases. But in all cases where a primary focus in teeth or tonsils was overlooked the treatment of jugular phlebitis was in vain. As long as a primary focus in the mouth cavity was feeding the secondary infection in the jugular veins it was impossible to cure the infection in the jugular veins.

It will interest the dental profession to know that in the presence of any pulpless teeth—roentgenologically negative or positive—the jugular phlebitis remained refractory to any treatment. The same applies to root fragments and impacted teeth after a certain age. Slightly pyorrheal teeth do not seem so dangerous as feeders on account of the possibility of drainage, while severely pyorrheal teeth also act as feeders for the jugular vein infection.

From the viewpoint of bacterial allergy it is interesting to know that the amount of infection is not as important as the reaction of the body to the absorption of bacterial toxins in a sensitized body.

In a paper on the eliminating function of the tonsils in dentogenic infections I (4) reported that many chronic infections in the tonsils clear up after complete removal of dental infections. After removal of infected teeth the tonsils have to be examined for infection by inspection and suction.

Of special interest is the presence of tonsil stumps. According to Rhoads and Dick (5) only a small percentage of tonsillectomies are done completely, even by specialists of reputation.

The diagnosis of tonsil stumps is sometimes difficult, as in most cases they show no symptoms on oral inspection. A normal looking scar tissue may conceal a severely infected tonsil remnant. Direct palpation of the scar tissue with the tip of the index finger elicits much local pain. External palpation of the tonsil bed reveals usually induration and also causes pain. As tonsil remnants are consisting of inflamed, dense, proliferative connective tissue, the induration and pain on pressure are easily explained. Tenderness of the submaxillary lymphatic glands is also pathognomic for infected stumps, but only after tooth infections have been ruled out.

The removal of tonsil stumps requires great surgical skill and experience.

After complete removal of oral infections the infection in the jugular veins disappears by itself in some cases; but in the majority of cases the latent infection in the jugular veins persists as an independent focus of infection.

Phlebitis as a Cause of Arthritis

Jugular phlebitis plays a deciding rôle in the production of rheumatic diseases. Russek and Abbott (6) only recently introduced the term rheumatic jugular phlebitis into the American medical terminology in a paper published in the *American Heart Journal*, while Poynton (7) in England described this condition in 1898 in the *Lancet*.

Jugular phlebitis is able to produce phlebitis in all parts of the body. Klinge (8) believes that bacterial jugular phlebitis is able to cause peripheral polyphlebitis in a sensitized patient through the mechanism of bacterial allergy.

I believe that functional disturbances in the venous system will play the greatest rôle in future discussions of the etiology of rheumatic diseases. Few authors have considered vascular disturbances an important factor in chronic inflammation of joints.

In 1933 (9) I published my observations on the relationship of phlebitis and arthritis. My results in the treatment of arthritis by removal of infections in the venous system were confirmed by several authors.

Experimental evidence has confirmed my conception of the importance of vein disturbances in the causation of arthritis.

It is surprising how little attention has been paid to vein pathology in rheumatic diseases. Chiari (10) states in his book on the pathology of acute rheumatism: "Pathological changes in the veins in connection with rheumatism have been hardly mentioned in medical literature."

One of the most important causal factors in arthritis is the disturbance of venous drainage from a joint. Since in an inflamed vein the inner lining becomes swollen, the result is a decreased diameter of the vein canal (inflammatory phlebostenosis). Ceelen (11), and Levin and Bucy (12) have proved in biopsies of inflamed veins that the inflammatory swelling of the endothelium (proliferative endophlebitis) interferes with the venous drainage. The result of venous blockage is a venous congestion in distal tissue.

On the basis of experiments in dogs and rabbits Wollenberg (13) in 1910 came to the conclusion that arthritis is due to vascular disturbances, especially due to venous congestion.

Bernstein (14) in 1933 was able to produce the lesions of chronic arthritis and the formation of new bone in dogs by means of artificially produced venous stasis. To produce arthritis in the spine he ligated the lumbar veins at their juncture with the vena cava. By ligating the branches of the femoral vein which drain the knee he caused venous congestion and subsequently arthritis in the corresponding knee joint.

Blockage of the venous return increases transudation in distal tissue, because it increases the permeability of the venules and capillaries. The result is venous congestion in distal tissue.

It is a well known pathological fact that any tissue with venous congestion is predisposed to inflammation. It becomes a tissue with lessened resistance to bacteria and bacterial toxins. Next to the accumulation of metabolites the factor of stagnant anoxia seems to play a great rôle in the decrease of local resistance in congested tissue. Many bacteriologists have stressed the long distance action of bacterial toxins in a weak tissue.

From the viewpoint of bacterial allergy it is known that antigen-antibody reactions are violent in a congested tissue and cause inflammation.

I have postulated (15) that inflammatory phlebostenosis in proximal veins is a fundamental factor in the causation of arthritis in distal joints. In arthritis of the mandibular joints I remove the inflammatory phlebostenosis in the internal jugular veins. In arthritis of the upper extremities the endophlebitis of the subclavian vein has to be removed in order to create a normal drainage. In the lower extremities the tibial and femoral veins have to be recalibrated to their normal diameter in order to cure arthritis in the foot or knee joints.

Summary

Arthritis is in most cases the result of oral focal infection which causes jugular phlebitis and subsequently polyphlebitis in the peripheral veins. Inflammatory swelling of the inner lining of the veins (proliferative endophlebitis) interferes with the venous drainage of a joint which results in a joint with venous congestion and seems to be the most important factor in the

causation of arthritis. As any tissue with venous congestion becomes weak in its resistance against bacteria and bacterial toxins, it becomes predisposed to inflammation.

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200 WEST FIFTY-FOURTH STREET

SEX DETERMINATION AND THE WAR

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(Continued from page 540)

Hermaphroditism

In several species of oysters there is a change from one sex to the other. In fishes, certain males transform into females. Experimentally, it has been shown that excessively high temperature will cause young female frogs to transform into males.

In the common fowl, Crew, in 1923, reported the case of a hen, the mother of chicks, whose ovary (left side) was destroyed by tuberculosis. Later this fowl functioned as a cockerel, and with a female mate became the father of two healthy chicks. Riddle in 1924, recorded the case of a ring dove that altered its sex behavior, ceased laying eggs, and acted as a male. Autopsy disclosed the fact that it had lost its single left ovary by tuberculosis, and that two well developed testes were present.

Experiments have shown that when the good left ovary is removed by surgery from a fowl, the right ovary, which is tiny in young birds, and finally degenerates, under ordinary circumstances, will begin to grow. Instead of developing into a normal right ovary to replace the left one, it develops as a testis, instead. The bird thus transforms from a young female to a male bird.

Partial sex reversal occurs in human cases. These odd transformations may be due to tumors of the sex glands, but are frequently identified with tumors of the suprarenals, the pituitary or the pineal gland.

In 1922, Mathias described an eighteen year old girl afflicted since her third year with a beard, a hairy body, flat breasts, a deep voice, and abnormal sex development. She died from a fast growing tumor of the suprarenal gland. Mathias also described a male who had been feminized by the same cause. A twenty-six year old man had a left-sided tumor of the adrenal, and his breasts had enlarged, while both testes had become atrophied a year before his death.

Novak, in one of his reports, posed a peculiar question. A young college student, at nineteen had always

been regarded as a fairly normal girl. As she matured, she became worried over the fact that her menstrual periods did not appear. Finally the case was referred to Dr. Novak. He found that while the external genital organs were apparently those of a female, the reproductive passage ended blindly. Operation revealed the fact that the uterus and oviducts were absent, and that two organs were present in the abdomen, which proved to be testes, undescended, of course. The patient was never told of her actual condition, and still remains feminine in her outlook on life. She knows that she can have no children, and being conscientious, will of course never consider herself fit to marry.

The "free-martin" occurs in cattle when one fetus begins as a male, and its twin, a female at first, fails to develop normally. The embryonic membranes of the two separate embryos become united, and the blood vessels are anastomosed or fused, so that the internal secretion from the testes of the male, interfere with the normal development of the female. The "free-martin" is always sterile, and her gonads modify into testis-like organs. Externally the change is not apparent, however. Similar types of intersexuality appear in sheep, pigs, goats and rabbits. Failure in the male reproductive system with resultant appearance of hermaphroditism has been reported in the opossum, the dog, and in human cases.

Sex Hormones and Intersexes

The recent development of commercial preparations (unsaturated hydrocarbons) that are used to stimulate the sex glands, has led to some unfortunate instances of overdosage, and resultant cancerous conditions. The American Medical Association has repeatedly warned us of the dangers of the female sex hormone.

It is worthy of note that male sex hormone injections will produce hermaphroditism in female rats, as shown by R. R. Greene and associates at Northwestern University, in 1937. In forty-five litters the male rats were normal, but the females became hermaph-

roditic. In 1938, Greene's group reported on similar experiments in which they had injected thirty-two pregnant rats with female sex hormones. At the first report from the offspring of nineteen mothers, there were twenty-four feminized males.

There is unquestionably a terrific influence on the metabolism when such changes occur in developing fetuses. Yet we know that chemical agents will derange the development of other systems, causing deformed children. Attempts to produce abortion are sometimes credited with anomalies of growth and we know that syphilis is one of the most frequent causes of monsters.

Acidity and Alkalinity of the Reproductive Tract

In August, 1932, at the end of one of the sessions of the Sixth International Genetics Congress at Ithaca, New York, a report was given, without previous announcement, which described the remarkable studies of Unterberger, of Germany, with acid and alkaline douches, in women, and also in rabbits. I first heard of Unterberger's theory in 1930, through a friend who had then just returned from a sojourn in Germany. The newspapers took up the matter and some reported that the diet of the mothers had been proved to regulate sex, and thus to insure boys or girls at will.

Professor L. J. Cole, of Wisconsin University, has given us a clear and careful report on the subject in the *Journal of Heredity*. He secured the original papers of Unterberger and also conducted experiments on swine, at Madison, Wis.

Unterberger, in 1930, reported results obtained after his treatment of a number of women for sterility, using weak sodium bicarbonate solutions to reduce the pronounced acidity of the vagina. In fifty-three cases of childbirth, spread over a period of ten to twelve years, after such treatment the child was reported, *in every case*, to be a male. In 1932, Unterberger announced that he then had seventy-four cases on record, and that *all* were "an unbroken series of boys".

Unterberger assumed that a slightly alkaline reaction would stimulate the movement of the Y bearing, more than the X bearing spermatozoa, and thus enable the male producing spermatozoa to reach the eggs first. And in none of his reports did Unterberger suggest or indicate that he considered it possible to change the chemistry of the female reproductive tract by diet.

Unterberger did not know of the significant studies of G. H. Parker, with rabbits, birds and reptiles. G. H. Parker found that in the rabbit, muscular contractions in the oviducts aided the spermatozoa somewhat in their battle against the current, and towards the upper portion of the oviducts. In the oviducts of the birds and reptiles, he found certain tracts of cilia, that were actually beating towards the ovaries.

The effective stroke of the cilia (hairlike tufts) of the human uterus and oviducts is downward, and propels the eggs onward, away from the ovaries, and towards the uterus. The spermatozoa must swim upstream against a steady capillary current that is flowing downward.

The spermatozoa have a whiplike tail, which moves like an oar, in sculling, and sends the tiny tadpole-like cell forward at the speed of about three millimeters a minute.

The alkaline secretions of the prostate gland, to-

gether with the secretions of the seminal vesicles, preserve life and induce the motility of the sperms. When the sperms (from 200 million to 600 million) reach the female reproductive tract, many of them are killed at once by the acidity of the secretions in the vagina. Other sperms are absorbed by the mucous membrane of the vagina and uterus.

The use of an alkaline douche by Unterberger would tend to favor the survival of spermatozoa. The beat of cilia is determined in part by the chemical condition of the fluids in which they function. Accordingly the conversion of a toxic acid condition in the vagina to a more favorable alkaline one, would give more spermatozoa a chance to swim towards the eggs.

In Unterberger's experiments with rabbits, reported in 1932, he used, in one series, a vaginal wash of a 0.25 percent solution of sodium bicarbonate just prior to mating the animals; in another series, the sodium bicarbonate was administered in combination with cacao butter, or as a powder. In a third series, lactic acid in cacao butter was used.

Unterberger's report shows that in the untreated control series, there were eighty-four young rabbits born; twenty-eight males and fifty-six females. In the series treated with sodium bicarbonate solution, there were one hundred twenty-one young; altogether; eighty males and forty-one females. When the sodium bicarbonate was applied as a powder, or mixed with cacao butter, there were seventy-six offspring, of which fifty-five were males and twenty-one were females. The lactic acid series, which should be equivalent for proper comparison, showed that of the twenty-one young, only five were males and sixteen were females.

It is obvious that the numbers given are too small to be of any great importance. Unterberger stated in 1932 that he was then running tests with cows but no reports have appeared regarding their success or failure.

Professor Cole and associates, at the University of Wisconsin, ran tests with hogs in 1932, and found that of the 170 pigs that were born to sows that had received douches of sodium bicarbonate, there were 83 males, and 87 females. This proportion giving approximately 48.82 percent males; did not differ greatly from the untreated litters, which numbered 141 males, and 148 females, or 48.79 percent males.

One of the New York dailies, with a flair for sensationalism, in 1940 recorded "tests" that were to be made with animals, and later discussed their progress. Finally, they prepared the public for an announcement of the sex of the child born to an ardent believer in the alkalinity theory. But the result was negative. Just how overwhelming a triumph the appearance of quadruplets of the proper sex would be, may be imagined. But the plan was a "bust", except for the publishers, who *sold more papers*.

The difficulty about any means of separating the two types of sperms may be seen from the fact that chemical or physical injury to the sperms, may cause them to be so weak that offspring will be deformed.

Artificial Insemination

Under the heading of "Those War Babies", again, a report of the Paris Health Service for the three months of the present war, was discussed shortly after it appeared. The report stated that, as in previous

wars, there was a striking preponderance of male over female births. But the sex is determined at the time of fertilization of the egg.

Prejudiced statisticians could likewise cite the amazing report of the National Research Foundation for Eugenic Alleviation of Sterility issued in 1941. For artificial insemination yields excessively high male-female ratios.

Seymour and Koerner (3) give figures that show a relatively high survival of males, as compared with the birth ratio of males to females that we have already discussed.

Of the thirty thousand physicians circularized, there were 7,642 who answered. At least one pregnancy was induced by artificial insemination, in 9,489 women who were successfully treated by 4,049 doctors. And in 1,357 patients, more than one pregnancy was thus produced.

The use of spermatozoa from carefully chosen donors, was successful in the case of 3,510 pregnancies. Of these, 2,060 were boys, and 1,450 were girls.

Striking indeed was the report when successful pregnancies were induced by the *husband's spermatozoa*. Of the 5,728 viable children, 3,623 were boys, and 2,105 were girls. The physicians did not attempt to explain why such a high rate of boys appeared.

The report shows that 97 percent of the pregnancies initiated by artificial insemination resulted in live babies. The proportion of boys to girls was roughly eight to five, when the husband's spermatozoa were used, and seven to five, when a donor's was used.

This proportion of about one hundred sixty boys to each one hundred girls, when the husband furnished the spermatozoa, comes close to the proportion of males ordinarily listed as existing in the first three months of pregnancy. And the proportion of one hun-

dred forty boys to one hundred girls obtained with donor's spermatozoa is still far higher than the figures of about 104 boys to 100 girls, given as the average proportion.

Pending an adequate physiological explanation, we may conclude that the carefully prepared, and presumably alkaline reproductive tracts of the women favored the successful voyage of a preponderance of male-producing spermatozoa.

The survival of a larger number of children, would, according to the reports of those statisticians who have followed up records of abortions, permit *more of the boys to live* throughout the period of gestation. The primary sex ratio of one hundred seventy boys to one hundred girls (before birth) would lend itself to this belief.

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SUGGESTION

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Suggestion is the purposeful conveyance of an idea from the mind of one person to the mind of another. This may be accomplished by either the printed or the spoken word. An intimation, insinuation, or physical expression, such as gestures, posture, smiles, grimaces, may be used to convey ideas in suggestion. The effectiveness of suggestion varies because individuals themselves vary in their degree of suggestibility. Literally, suggestion means to bring others under the influence of one's own directed thinking. The word is derived from the Latin *suggero*, *sug* meaning under, and *gero*, to bring.

The results of suggestion depend upon: 1, The subject's unconscious and conscious past; 2, the immediate mental condition of the subject; 3, the nature and relation of the operator to the subject; 4, the prestige of the operator; 5, the attitude of both the operator and the subject toward the idea; 6, the manner in which the suggestion is given; 7, the kind of suggestion given. The benefits derived from suggestion depend upon the idea itself, the manner in which this idea is carried out by both operator and subject, and the general reaction-patterns of the subject to commands of authority.

The ideas which we accept from teachers, employers, and parents, as well as the orders we give to others, are suggestions. Since the workings of suggestion are closely related to the unconscious, one who is a master in the use of suggestion can influence the unconscious of others. In so doing, he can also influence their conscious minds. The psychophysical reactions to suggestion are such that ideas gather a strong emotional content. These ideas then overwhelm contrary ideas so that the latter are either greatly inhibited or completely eliminated. The subject then becomes motivated by the dominant idea which was suggested to him by the operator.

Through suggestion the unconscious mind is made to reason deductively; hence, it accepts easily what is suggested. Hardly a day passes without our using suggestion or having suggestion used on us. Most of the time this suggestion is accepted unconsciously. Suggestion is any kind of an appeal to the unconscious. He who has mastered suggestion is successful in anything he undertakes. The teacher who knows suggestion succeeds in teaching, whereas the teacher who does not use suggestion conveys little knowledge to his pupils. The

physician who uses suggestion inspires a great deal of confidence; his patients believe in him and follow his advice. In a similar way, the lawyer who is a master of suggestion usually wins his cases.

Many of us unfortunately accumulate knowledge that we never learn to apply. We do not know how to use suggestion on ourselves or on others. A college degree may sometimes mean little unless it is supplemented by the use of positive suggestion. Many multimillionaires never saw the inside of a college, but they do understand and are able to use suggestion which in part accounts for their success. Imagine how important a man could be if he had a good education, and with it, a working knowledge of suggestion.

Repetition is exceedingly important in suggestion. Repeat what you are suggesting often and in different ways. Make your suggestion pleasant, complimentary, and positive. Say it with confidence, friendliness, and a feeling of security. Avoid arousing resistance to that which you wish to accomplish. Negative suggestion is derogatory, discouraging, belittling, and unpromising. Avoid it. Remember always that strong factors in the use of suggestion are the repetition of suggestion, confidence in oneself, and an offer of reward for the subject.

Prestige increases the effectiveness of suggestion. Therefore, speak with authority, associate yourself and your ideas with those of authorities, and let people know of these associations. Thus you enhance your prestige and make the suggestion more effective. Persons who have become successful, such as high ranking government officials, physicians, and authors of renown, possess prestige, this most helpful factor in suggestion. Such persons seem to have a halo about them and because of it their suggestions are readily accepted.

Repetition, emotion, and prestige are of the utmost importance in the use of suggestion. Because children have fewer experiences than adults, they are less skeptical, and therefore more suggestible. They are much more gullible and believe things which adults do not believe. Because of this children have fewer resistances. Life has not yet knocked them about, and human beings have not yet disappointed them. Therefore, they believe more readily and are more suggestible. For this reason, with children, more stress must be given to repetition and the appeal to emotions; with adults, on the other hand, prestige must be emphasized.

What is suggestion and how does it work? 'Suggestion may be defined as the entrance into the mind of an idea or image which is accepted uncritically. This idea or image may come from another person, from reading, from the stimulation of the senses, and from unconscious complexes. Because of suggestion, ideas result in action, even though these ideas have arisen from a source outside of the individual. All people are suggestible in varying degrees. Training, education, and experience modify the degree of suggestibility in different directions. The acceptance of suggestion may be manifested either by active or by passive glandular action, and by specific thinking coupled with action.

Suggestion may be used to such a degree of intensity that complete hypnosis is produced. Through the power of suggestion, a normal person may feel pain and temperature changes; he may have hallucinations and may experience many erroneous and delusional ideas.

Ulcers have developed following the suggestion that they would develop. This may sound rather strong, but it is true that people have died unnecessarily, and others have gone insane, solely through the use of bad suggestion.

Likewise, through suggestion, a person or a group of persons, can easily be influenced for or against ideas, institutions, religions, health practices, science, law, politics, and every situation which revolves around human beings and their emotions. When an idea is implanted by a person to influence or produce definite action in another individual, we see a simple case of suggestion. However, the idea that leads to action must be presented so as to seem free from conflict, free from inhibition, and devoid of interferences and resistances. In other words, you may control the behavior of another person by suggesting thoughts, or through speech, writing, and implication. The phenomena of hypnosis, rumors, politics, propaganda, religion, and advertising are all rooted in the principles of suggestion.

Suggestion is an instinctive tendency in man. We learn our mother tongue and other languages best through the imitation element of suggestion. When suggestion is used in language, we achieve social cooperation that produces understanding, exchange of ideas, and fulfillment of preconceived actions. Through the medium of language, we learn to adjust our behavior to the behavior of other people.

It must be remembered that the subconscious is susceptible to ideas in a passive way and later these ideas may become dynamic. It is through suggestion that the unconscious is made suggestible, for suggestion produces mental ideations. It even causes organic or functional changes in the body, such as vomiting, constipation, diarrhea, insomnia, somnolence, rapid pulse, dry or moist skin, changes in blood pressure and in chemistry, and many other physical symptoms.

Suggestion is a force and a concept imposed by one person on the mind of one or more persons. This idea, if accepted by the subject, is transformed into action, so that the desired effect is produced.

Suggestion is used, individually or collectively, every day in the relationship between salesmen and customers, doctors and patients, teachers and pupils, politicians and constituents, ministers and congregations, parents and children. It has been used to induce the commission of crime. This partially accounts for waves of crime, suicide, kidnapping, and pyromania. It has also produced dancing manias, hysterical manias, dying manias, fads, exaggerated fashions, and many other equally irregular forms of behavior. If you have ever experienced mob action, have seen the excitement that goes with political meetings and rallies, or witnessed the fervor of religious revivals, and the angry emotions prevalent in strikes, riots, and lynchings, you can readily see that the force of suggestion is most powerful.

Most times when we use suggestion, we are unaware that we are doing so, and those whom our suggestion influences are likewise often unaware that suggestion is being used upon them. Nevertheless, suggestion works. On some occasions we are conscious that we are using suggestion, and that we are doing so deliberately. But we are rarely ever aware that it is being used upon us. Frequently, when suggestion is used, it is not recognized as such; for it may be called by one of many other

names—psychology, business methods, advertising, religion, education, child guidance, mental hygiene, common sense, science, system, methodology. But whatever it is called, it still remains suggestion.

Suggestion is a technique used to influence children or adults, individuals or groups. This may be accomplished by one or more of the following: gestures, clothing, style, radio, salesmanship, advertising, motion pictures, propaganda, politics, architecture, schools, and other institutions. The most common ways of applying suggestion in either positive or negative form are through speaking and writing. The result is an impression, an effect, an attitude, a mental change, and an action.

Every time you speak for or against a person, a thing, an idea, or an institution; whenever you tell someone to do or not to do certain things; when you try to teach people or to influence them individually or in groups, you are using suggestion. If you are a good teacher, a good lawyer, a good politician, a good parent, or a good salesman, you are using suggestion properly. On the other hand, if you are a failure, it may well be that you are using bad suggestion, for suggestion is fundamentally paramount in all human relationships. You come in contact with it as soon as you are able to feel, and you remain in contact with it as long as you are able to feel.

It is important to remember that suggestion is a double-edged sword. It can cut from both sides and in opposite directions. Generally, positive suggestion is more influential and more practical. However, negative suggestion may on rare occasions be more effective, but only where a good transference already exists.

In most instances positive suggestion is preferable because it deals with thoughts and ideas that flatter people, and because it caters to the likes and dislikes of an individual, thus making him feel pleasant. This is known as catering to the "pleasure principle". Negative suggestion includes anything that discourages or disparages, that intensifies pain or insecurity, and that "steps on the complexes". Complexes are generally associated with unpleasantness. It follows, therefore, that those who use positive suggestion are better liked and more successful in their human relationships than those who use negative suggestion, for it is instinctive within us to believe and follow the advice of those who use positive suggestion, inasmuch as they satisfy our "pleasure principles". The influence of positive suggestion is more effective because it satisfies emotional needs and caters to the pleasure principle. How incongruous it would be for a politician seeking reelection to degrade, insult, discourage, and belittle his constituents. Negative suggestion causes disintegration in a person, while positive suggestion builds the person up.

Important Points About Suggestion

1. Every person responds to suggestion.
2. Different people have different degrees of suggestibility.
3. The degree of suggestibility depends upon the experiences of each individual, his likes and dislikes, his securities and insecurities, his fears, loves, hates, ambitions, attitudes, identification, and the extent of his general knowledge and understanding.
4. Suggestion may be either positive or negative.
5. Suggestion is most effective when one or more of

the following are played upon: security, insecurity, love, hate, pleasure, pain, prestige, ambition, reward, ideals.

6. Repetition is essential in suggestion. The suggestion must be repeated constantly over a period of time.

7. Suggestion influences a person whether he is alone or in a group.

8. Suggestion, when given orally or in writing, may be intensified by stimulating the sense of taste, touch, sight, smell, or hearing.

9. Suggestion may be carried out by the subject consciously, unconsciously, or in combination.

10. Generally speaking, those influenced by suggestion are unaware of the fact, because they rationalize, supplying their own conscious reasons in explanation of their actions. It is axiomatic, however, that even if they know suggestion is being used on them, they respond to it because the unconscious mind is influenced more than is the conscious.

11. Success in a particular field of endeavor frequently results from the skillfully repeated use of suggestion. Many industrialists who handle men skillfully ascribe their entire success to this knowledge.

12. It is most difficult for an individual to resist suggestion when it is properly used, because the unconscious responds unknowingly and the conscious must follow. Because of this fundamental law, the listener responds to the emotional influence of the speaker without evaluating what he is saying.

13. Varying degrees of conflict, action, chaos, unhappiness, indecision, inertia, confidence, assurance, security, faith, hope, charity, love, transference, pleasantness, and pain may be induced through suggestion.

14. Suggestion is most frequently used by parents, teachers, educators, ministers, politicians, dictators, salesmen, business men, physicians, lawyers, and last but not least, lovers.

Effectiveness of Suggestion

Suggestion has been found to be most effective when given clearly and when easily understood; when given with confidence and conviction; when presented subtly, and indirectly, yet forcefully, in such manner as to leave no loophole for doubt or questioning; when repeated frequently; when it caters to the "pleasure-principle" and is pleasurable and encouraging, neither discouraging nor belittling; it is desirable that it recognize and flatter the individual and that it be in keeping with wishful thinking; when given by a person of prestige, or when supported by recognized authority; when it aids security; when it is given by someone you love, admire, respect, believe, or trust; when it is given by a person highly recommended by someone you love, admire, respect, believe or trust; when it meets with social approval; when it makes a good impression on neighbors, friends, or relatives; when it agrees with past or present conscious or unconscious attitudes; when it is not contradicted or counteracted by other people, especially by those in one's immediate environment; when the suggestion is approved and encouraged by others; when the associations aroused by it are pleasant rather than unpleasant; when it promises progress or a desired gain; when it avoids irritating the subject's complexes; when it offers an easy solution to one's problems and ambitions; when used in closely knit groups which concentrate attentively.

(To be continued)

HOME REMEDIES

LEONARD D. FRESCOLN, M.D.

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In keeping with the conservation principles of war times, perhaps we can revert to times long gone by and investigate some of the crude methods of treatment with the chance of applying some of them right on the farm. It is true most of the pharmacopœia of the ancients is a dead book; certainly incantations, amulets and strange concoctions have no scientific basis in medicine. However, some of the substances used have been found of real use, such as golden seal, geranium, sas-safras, jimson (Jamestown) weed, lobelia, pulsatilla, vanilla, pepo, turpentine, and cod liver oil.

In the second and fourth volumes (1923-26) of *Popular Science*, published by the Philadelphia College of Pharmacy, are several articles by the late Charles H. La Wall and Prof. Heber W. Youngken giving a list of herbs in the materia medica of the ancients and of the American Indians. The following stanza from Kipling appears in one of those articles:

"Excellent herbs had our fathers of old,
Excellent herbs to ease their pain,
Alexanders and marigold,
Eyebright, orris, and elecampane.
Basil, rocket, valerian, rue,
(Almost singing themselves they run)
Vervain, dittany, call-me-to-you,
Cowslip, melilot, rose of the sun.
Anything green that grew out of the mould
Was an excellent hero to our fathers of old."

Materia Medica of the Ancients

With some of our modern penicillin mold and sulfa drugs, we feel rather a reversal to the times when sulphur was blown into the trachea in throat infections and cobwebs were used as a styptic. Bleeding, too, is still practiced especially when blood and plasma are needed for transfusions. Blistering is occasionally seen, generally unintentional but with good counterirritant effect. The poultice, in more sanitary form, still has its use in treating phlegmons and boils. Mystery has always been associated with certain mineral, vegetable and animal products in relation to their effect upon the afflicted. The papyrus gives a list of remedies used centuries ago, such as the poppy, castor, gentian, hemp, aloes, squill, saffron, myrrh, and henbane. Other lists include honey (laxative), vinegar, mandragora, vervain, duck-blood, etc.

Then there was developed a list of drugs which were said to be harmful to specified lower animals: wolfbane, cowbane, dogbane, henbane, bugbane, and leopardsbane, but useful in the treatment of human ills. More recently came boneset (emetic and cathartic), liverwort, feverwort, heartsease, walnut (for disease of the brain which it resembled), and wine. Rose and oak were often used; leeches were applied to reduce swelling about the eyes and back of the ears, and are occasionally still so used. A mixture of bramble, mugwort and everlasting was used for dysentery; yarrow was prescribed for cough, and for baldness, an old raven soaked with sheep's suet or a mouse filled with clay. Camphor (for cooling drinks), rhubarb (laxative), ambergris, sandalwood, aloes (purge), storax, galangal, spikenard, benzoin, frankincense, scammony, manna,

opium, galbanum, opoponax, all were used of old; likewise cinchona (for fever), coca as cocaine, ipecac, sarsaparilla (for syphilis), guaiacum (for rheumatism and syphilis), wax, some of these still used for one thing or another. Shells, salts, seaweed, excrement, toads, spiders, etc., seem to have had a use in primitive medicine.

Strange conjectures led to applying cut pigeons to gouty feet, the administration of snails for cough, worms for pulmonary trouble, bugs, bezoar stones (gotten from the intestinal tract of herbivora), "dragon's blood" for various afflictions.

Materia Medica of American Indians

The American Indians still use crude decoctions of herbs and animal as well as mineral products for the cure of disease. Some of their practices were the application of saliva to a wound as a dog does, suction, oleo-resin of balsam fir on the foot for sores and cuts (used internally for gonorrhea and in colds as a diaphoretic); infusion of milfoil for swellings and earache (internally for stomach complaint); sweet flag as a carminative and for fever and toothache; maidenhair fern for chills and fever and for rheumatism; peyote from cactus as a cerebral stimulant; spikenard as a carminative and expectorant and locally for dropsy and deafness; jack-in-the-pulpit in powder form for headache and rheumatism; Virginia snakeroot locally for snakebite and for toothache and fever; Canada snakeroot for stomach trouble; pleurisy root as a diaphoretic and local application to wounds; rattlesnake fern root applied to cuts; waterlily for leucorrhea and suppurating glands; cohosh to induce labor and for colic and rheumatism; pipsissewa to sores and as a diuretic; hemlock to bring life to an end; black snakeroot for rheumatism and menstrual disorders and also as an antivenom; kin-nikinnick as an emetic and for smoking; dogwood for colds; lady's slipper as a sedative; the yellow lady's slipper for worms; jimson weed as a narcotic and for wounds; fleabane for diarrhea and rhinitis; button snakeroot for snakebite and as a diuretic; wahoo for uterine trouble; joe-pyeweed for dysuria; crane's-bill for diarrhea and thrush; Bowman's root as a poultice; grindelia for colds and colic and as a local astringent; witch-hazel for bruises and piles; hepatica for coughs and as an emetic; parsnip for convulsions and constipation and as a poultice; hops for abdominal pain and applied to wounds; puccoon as stomachic and for sore eyes; waterleaf for chest pain; cassine (black drink) as a stomachic; red cedar as a diuretic and for cholera.

Crude mixtures of insects, snake's eyes, herbs, soil, etc., are applied to wounds to this day on the Indian reservations, although the government is now being able to educate the Indians in the use of modern drugs. Indian tobacco still is smoked and used as an emetic; Canada moonseed is used for scrofula and sore mouth; Indian pipe is applied to sore eyes; tobacco for sore tooth and inwardly for rhinitis and cough; prickly-pear smoke for sore eyes; ginseng for headaches and female troubles; pokeberry as an emetic and for rheu-

matism; may-apple as a cathartic; Solomon's seal for local swellings; wild black cherry for sore chest and sores; white-oak for diarrhea, castor bean decoction for sore ears; white rose for conjunctivitis; rumex for tuberculosis and as a poultice; skullcap for amenorrhea and pain in the breasts and for diarrhea; Indian pink as a vermifuge and sedative; dandelion for bruises and bethroot for epistaxis and women's diseases; hemlock to prevent chafing; slippery elm for cough and constipation, American hellebore as a test for the stomach, Culver's root as a purge and also cascara; sarsaparilla as an alternative; rhatany as an astringent; aconite for neuralgia, baneberry as a stomachic; aletris as both stomachic and emmenagogue; pulsatilla as a counter-irritant; bearberry for sprained back; artemesia as a stomachic and vermifuge; trailing mahonia (barberry) as an appetizer; American wormseed for dysmenorrhea.

Animal material was made use of in treating many affections; rattlesnake for tuberculosis and for snake-bite; beaver follicles for dysmenorrhea; pig-blood for snakebite; crickets for dysuria; lizards for body pains; spider-web for cuts; owl feathers for loss of weight; buffalo and bear oils as liniments.

Red ochre is used to prevent sunburn, slaked lime is applied to gun shot wounds, and clay is used to induce sterility to this day among the tribes.

Some of their drugs are of proven use, such as poke, dock, geranium, golden seal or hydrastis, spikenard, cone-flower, cascara sagrada (*Rhamnus purshiana*), sassaparilla, butternut bark, blackberry root, yerba santa, jimson weed, arbor vitæ, lobelia, pulsatilla, verbena, elder, vanilla, pepo, larch, turpentine, etc.

It is surprising to see how early some of man's ailments had been diagnosed and efforts made to give something that would help. The old practices of giving baths, rubbing, exercises, heat and sun cures, fairly suitable dressings, crude anesthetics and surgery were the start of our modern methods. Squill is no new drug, nor is vervain, dill, alcoholic preparations, anise, calamus, caraway, cumin, coriander (formerly for headache), colchicum, dates, plums, figs (formerly a tonic), frankincense (used in headaches), grape, lotus flower, linseed, mastic, onion, peppermint, storax. Also used by the ancients, as well as in modern practice, were iron, lead, magnesia, nitre, blue vitriol, sodium chloride, and sodium carbonate. More curious, however, was the use of such animal derivatives as asses' hoofs, goose grease (used by many of our ancestors), swine's teeth, moisture from a pig's ear, flies, greyhound heel for alopecia, and the fat of a cat and an ibex. In those times incantations were stressed, also peculiar ceremonials.

Later on came epsom, seidlitz, glauber and rochelle salts; mercury, Fowler's solution, etc. Cranberry was used originally for erysipelas, balsam apple as a liniment and stomachic, quassia of course as a bitter, sodium chloride for halitosis, washings from the blacksmith's tub with soap and salt to counteract poison-ivy (the chloride of iron solution with glycerine used today.) Yarrow was used for fever in general, garlic and horseradish as good counterirritants, cabbage leaf to protect against sunstroke (as used by many old people today), Job's tears (formerly a neck charm) for teething as something hard and harmless for the child, pumpkin seed and male fern or felixmas for tape worm (as used today), colt's foot leaves for a tonic, flaxseed

for cough, asafoetida and camphor to ward off evil spirits (nervous troubles) and digitalis leaves for heart disease.

In some cases, you see, can be observed a gradual transition to the more refined and modern therapeutics. It is not clear why silica was used for diabetes; saffron to bring out measles; cypress for ulcerated tooth and gout; dragon's blood for venereal disease and to harden the gums; dogbane for epilepsy and the itch; and cloud-plant for ticks and hemoptysis; but the following were properly used: juniper berries for the kidneys, hops as soothing in cases of hives, sumac as a gargle, pennyroyal in ordinary colds, plum juice as an astringent, senna for fevers (but also for tumors and ringworm), cherry bark for dysentery (also for eczema), white thorn in vaginal douche, white pine as a plaster (but also a laxative), wormwood for fevers (also throat affections and dandruff), heart-flower as an astringent (also for epileptics), rubber-tree for cuts (and diuretic); crow-flower (magnolia) for wounds, aster for diarrhea and fevers and female troubles, serpent-tongue for gout and snake bite, sleep plant for ulcers, scorpion rope as a purge and eye troubles, copal fruit as a diuretic, seven cane for eyes and nostrils, nimosa as emmenagogue, thorn tree for dropsy and snake bite, horse leek for dysentery and hemorrhoids, four-o'clock as an antiseptic, sand-tomato as a laxative, corn tassel flower for colds and inflammation, and oxalis as a diuretic.

Modern Home Remedies

Among modern home remedies, hickory ashes are used as an antacid, decoction of flowers of arnica Montana for rheumatism and paralysis, barley decoction as laxative, infusion of blood-root as emetic, infusion of black flag root as diuretic, boneset infusion as febrifuge, bran decoction to allay local irritation, infusion of camomile flowers as stomachic, infusion of dandelion root as a tonic, infusion of elm bark as a demulcent and expectorant, decoction of elecampane root as expectorant, decoction of fern root as vermifuge, infusion of horehound leaves as expectorant, infusion of hop flowers as anodyne, decoction of marshmallow root as demulcent, decoction of oak bark as astringent gargle, infusion of orange-peel as stomachic, infusion of parsley root as a diuretic, infusion of pennyroyal leaves as relaxant in whooping cough, infusion of peppermint leaves as a vehicle, infusion of sage leaves as a carminative, infusion of tansy as tonic and vermifuge, infusion of wood-tar for chronic eczema, infusion of tobacco leaves as an antispasmodic, infusion of wild cherry bark as a tonic, decoction of wintergreen as an alternative, emplastrum of resin for leg ulcers and as an adhesive pine pitch or cedar is used. Root of crane's bill is used as an astringent. Clay-mud is used for bee sting and the latter has been used in arthritis. Wild cherry syrup is still used in cough mixtures. Holly leaves and berries are used as an emetic, and yarrow as a bitter tonic.

Today we have elaborated upon lard in ointment preparations; we have occasionally made use of the cochineal bug, cantharides, fly-blisters, gelatin, oxgall, eggs and milk, beef extract. Finally, have come the enzymes, vaccines and sera, glandular products, vitamins, sulfa drugs and penicillin, which perhaps would seem as strange to the ancient people and to the Indians as their remedies seem to us.

222 SOUTH FORTY-SIXTH STREET

Editorials

Why Not An Atomic Bomb for Disease?

The war on disease knows no end, no armistice and no peace. The physician is the soldier who fights and sometimes dies in defending his patient. When he loses, it may be because his weapons were defective or inadequate. Or perhaps he has not learned to use them to the best advantage. Recently, we quoted from an article by Professor Harlow Shapley of Harvard which posed the question, Why do we not make greater efforts to eliminate disease and premature death? Why are we so complaisant when we know that every so often poliomyelitis is going to take the lives, or what is even worse, is going to cripple thousands of fine American boys and girls for the rest of their days? Physicians will deny that they are either complaisant or indifferent. We feel that we are doing what we can, but we need help, governmental or municipal help. There has been in recent years an awakening of the public conscience in regard to public health. It is now recognized as everybody's business what happens to the ragged waif who lives beyond the railroad tracks. However, there is as yet only a bare beginning. The road is long and its reaches are far.

After the atomic bomb had done its dual best (or worst), the *Philadelphia Record* published an editorial entitled, How Much to Conquer Disease? The International Latex Corporation of Dover, Delaware, had it reprinted in the *New York Times*, and no doubt elsewhere "as a public service". The gist of the expressed thought was somewhat as follows: Congress appropriated two billion dollars toward an unknown experiment. Even Senator Truman could not find out what the money was being used for, although he tried. The Secretary of War (Stimson) silenced the clamor by asking for a vote for confidence in all who were working on the secret. He got his wish and the secret was well kept by hundreds of persons, most of whom, however, had only a vague idea of what they were doing. In war time almost anything is possible; in peace time we do not go all out against the perpetual enemy, disease. In 1937, Congress appropriated \$1,450,000 for research work on cancer. This deeply stirred researchers and public alike. They thought it highly magnanimous. The award was divided so that \$750,000 was for the building of a National Cancer Institute, and \$700,000 was for annual maintenance. It seemed colossal, but it was only one-tenth of one percent of the cost of setting up the atomic bomb! Total cancer research funds are said to amount to less than five million dollars, but cancer kills more than 150,000 persons in this country every year. Four years

of war killed only about twice that number, but, of course, the comparison is odious.

There we have a thoroughly and relatively easily preventable loss of life if we can only convert all in authority against such needless killing. But all war against disease is undramatic. The heroes work without the trappings of war, in quiet laboratories, often poorly equipped and not always sanitary. There is no fanfare of drums or guns. It would be great if we could turn our energy into the grooves such as were engendered by that "infamous attack" of December 7, 1941. An excited nation called for revenge, terrible, swift and sure. But you cannot arouse any such effort in fighting unseen disease germs. Only a mere handful of devoted men and women have the urge to forsake all and give all to defeat disease. Could we build a city of 125,000 inhabitants and pay them to spend all of their time and strength in fighting, let us say, tuberculosis or heart disease? Yes, we could if we would, but we are not quite ready for that. The millenium is still far off. We are, for the most part, unorganized for any such battle. Too many workers have no knowledge of what other workers are doing. Hence, useless experiments are repeated, there is duplication, heartbreak and no reward. Many a scientist goes to his deathbed bitter in the thought that his life has been "wasted". But has it? We have the men and the money. Let's use it intelligently and effectively. Let's have two billion more, but first let us organize and learn how to use it wisely.

The Constitutional Factor in Gout

Gout is an interesting disease from many viewpoints. It is possible that but for certain gouty persons the history of the world might have been different in some respects. It is remarkable that so many leading figures in the history of mankind in the political, scientific and artistic fields have suffered from gout. Regarded from this angle only epilepsy surpasses gout. Gout is also interesting because up to now medical science has not succeeded in gaining a deeper insight into the gouty process in spite of careful resarch. Since the time of Sydenham, who, two hundred and fifty years ago, wrote the best clinical description of gout, it has not been possible as yet to construct a sounder foundation for the better understanding of the gout problem, although many details have been made clearer and some new facts have been brought to light.

The classical acute gout is now rare, largely, it may be assumed, because of a different mode of living among that class most subject to attacks of this painful periodic affection. It is said to be a typical hereditary and familial malady. Practically all authorities are agreed upon this point. However, Dr. E. Freund of Vienna contributed a paper to the Bicentenary Congress on Chronic Rheumatism held in Bath, England a few

years ago, in which he submitted views not wholly in agreement with the general opinion. During the preceding ten years he had surveyed one hundred and twenty cases, and in only seven had he encountered a familial factor. While conceding that some patients were not informed about the diseases of their ancestors, most of the patients with which Dr. Freund had to deal were educated persons and well informed about their families. On the other hand, the conditions and habits of life in one family might be similar and thus a predisposition to gout should be considered.

He disputes, to some extent, the statement that race plays an important rôle. It seems to him that it is more the degree of domestication than a question of race. As for the relation of gout to diabetes and obesity, and the assembling of these three conditions into a diathesis, he agrees with Gudzent, Von Noorden, Seckel and Cantani, that this conception is not based on sufficiently sound premises. Obesity, he says, depends more on overnourishment and lack of exercise than on a constitutional factor.

Gout and nephrolithiasis appear to be somewhat allied, although most cases of nephrolithiasis show neither uricemia nor symptoms of gout. The association of gout with rheumatic fever and rheumatoid arthritis is rare, as is also involvement of the heart valves, and heart failure seldom occurs in even young patients with gout. Attacks of gout may follow an infection, as diphtheria, scarlet fever, and influenza, and in such cases an allergic reaction in a sensitized territory may be assumed.

Rheumatoid arthritis gives no predisposition to gout. The constitutional types are different in both groups of patients. The anatomical findings of osteoarthritis deformans and the clinical signs favor the assumption that these conditions provide the disposition for the outbreak and localization of gout attacks.

It may be gathered from the numerous writings on gout in recent years that the acute form is rare but that gouty attacks are fairly common. Further research is required to clear up many unsolved problems relating to gout. One feature which stands out as a result of clinical observation and research is that diet plays a large part in its causation, and therefore the nature of the food eaten is of importance in its prevention and treatment. There is much to be learned concerning gout in all its aspects.

Heinrich Heine

Heine, a Jew, was the most outstanding German poet of his day and it may be said that upon him, as Matthew Arnold remarked, "incomparably the largest portion of Goethe's mantle fell." He was educated at the University of Bonn and his early poems were published in 1821. In his young days his life was rendered more or less easy by the generosity of an uncle and he

was able to take long holidays on the sea, and his love for the sea is told more eloquently than by any other German poet.

Heine paid a visit to England in 1827 and detested the country and its inhabitants. But he came to hate virulently the country of his birth and after he had written his famous *Reisebilder*, he used some scathing invective against the German people. He declared that he must have rest but where was he to find a resting place?

He went to Paris and praised the French with unstinted enthusiasm. He called Paris the new Jerusalem, and the Rhine the Jordan, which divides the consecrated land of freedom from the land of the Philistines. But in spite of his rancor against Germany he acted as correspondent of German newspapers and wrote his well known *Atta Troll* in which he satirized the political verse of the day. In 1848 he had a stroke of paralysis and lay helpless in bed for eight years. This, however, did not curb his satirical powers and he inveighed against doctors in terms which were like Molière's, only more acid. He read all the medical books on which he could lay his hands, with reference to his disease. "What good this reading is to me I don't know", he said, "except that it will qualify me to give lectures in heaven on the ignorance of doctors on earth about diseases of the spinal marrow". These years of pain rarefied the genius of Heine and his later works, *Romanzero* and *Neueste Gedichte*, and the poems inspired by his passion for Camille Selden, sound more sincere than some of his previous great writings. Heine died in 1856 and was buried at Montmartre. He was a man without a country, with a towering intellect, a mastery of invective, a biting wit, and withal a kind heart.

News Items

Harvey Society.—The first Harvey Lecture in the current series, will be given at the New York Academy of Medicine Thursday evening, October 25th, by Dr. James A. Shannon. His subject will be "Chemotherapy in the Human Malaras."

Lectures to the Laity.—"Medicine Today" is to be the subject of the Laity Lectures Series for 1945-6. The six addresses scheduled deal with Medicine Today, November 8th; The Making of the Doctor, November 29th; The Ways and Means of Modern Medicine, December 13th; The Horizons in Medicine, December 27th; The Layman's Part in Medicine, January 10th; and Economics and Medicine, January 24th.

Medical Research in Atomic Energy.—Dr. C. J. Mackenzie, president of the Canadian Research Council, has announced the appointment of a special medical committee to act as general directing body on medical research in the field of atomic energy, according to *Science*. The members of this committee are Dr. Duncan Graham, Toronto; Dr. J. B. Collip and Dr. J. S. Mitchell, Montreal.

Clinical Psychological Services Transferred to Medical Department.—Because of the close relationship between psychiatry and clinical psychology, the office of the Chief Clinical Psychology, classification and replacement branch, AGO, has been recently transferred to the Office of the Surgeon General. Colonel Morton A. Seidenfeld has been assigned as chief, psychology branch, Division of Neuropsychiatric Consultants, and Captain L. I. O'Kelly has been designated assistant chief of the clinical psychology branch.

Publicity Program for Radiology.—The commission on public relations of the American College of Radiology has received a grant of \$15,000 from the National Electrical Manufacturers' Association to conduct a publicity campaign in connection with the commemoration of the fiftieth anniversary of Roentgen's discovery of the x rays, according to *J.A.M.A.* The campaign will be directed by a joint committee representing the college and the manufacturers' association. Through newspapers, periodicals and the radio, the rôle of the specialist in radiology as a doctor and consultant will be described. The campaign will end on November 8th.

Cancellation of Meetings on Account of Graduate Fortnight.—The following sections of the New York Academy of Medicine and affiliated societies have cancelled their regular meetings, October 8-19, because of the Graduate Fortnight, which will be held at that time: Neurology and Psychiatry, Pediatrics, Ophthalmology, Genitourinary Surgery, Orthopedic Surgery, Otolaryngology, Medicine, New York Roentgen Society, and the New York Pathological Society.

Hospitals Named for Refresher Courses.—The Surgeon General has notified the commanding officers of the following hospitals that their medical services had been approved for the professional refresher training of Medical Corps officers to extend over a twelve weeks period: Cushing General Hospital, Framingham, Mass.; Mason General Hospital, Brentwood, Long Island; Valley Forge General Hospital, Phoenixville, Pa.; Kennedy General Hospital, Memphis, Tenn.; Newton D. Baker General Hospital, Martinsburg, W.Va.; Percy Jones General Hospital, Fort Custer, Mich.; Winter General Hospital, Topeka, Kan.; McCloskey General Hospital, Temple, Texas; and DeWitt General Hospital, Auburn, Calif.

Friday Afternoon Lectures.—The first lecture in the twentieth series of Friday Afternoon Lectures at the New York Academy of Medicine, will be given on November 2d by Dr. Hattie E. Alexander, assistant professor of pediatrics, Columbia University. The subject will be Treatment of influenza bacillus infections in childhood. Other lectures to be given during the month of November are as follows: November 9: Diabetes: newer aspects of management by Dr. Edward Tolstoi, assistant professor of clinical medicine, Cornell University Medical College; November 16: The A. Walter Suiter Lecture, under the auspices of the Committee on Public Health Relations: Infectious hepatitis by Dr. John R. Paul, professor of preventive medicine, Yale University; November 30: Newer chemotherapeutic agents by Dr. Cary Eggleston, associate professor of clinical medicine, Cornell University Medical College.

"The Dawn of Abdominal Surgery."—This painting by Dean Cornwell, which depicts one of the most celebrated scenes in the history of American medicine, is being exhibited at the Health Institute in Philadelphia, under the sponsorship of the local Red Cross and supported by local medical societies and health associations. The details and the actual incidents and persons shown in the painting are the result of painstaking research and have been declared faithful in every way to the original dramatic incident in the life of Dr. Ephraim McDowell, who, as a result of this operation on Jane Todd Crawford became known as the Father of Abdominal Surgery. Mr. Cornwell did the painting as one of a series entitled, "Pioneers of American Medicine" which the Wyeth organization initiated in 1939.

Awards.—Colonel William C. Munly, of Washington, D.C., has been awarded the Legion of Merit medal "in recognition of exceptionally meritorious service rendered during the Italian campaign". Colonel Munly entered the Military Corps Regular Army in 1917 and has seen continuous service since. After the first world war he remained with the Army of Occupation until 1922, after which he went to London for the purpose of medical research in heart diseases in the clinic of Sir W. Thomas Lewis. He taught cardiology and aviation medicine. He has served in the United States as professor of military science and tactics at Cornell University and as Corps Area Surgeon, Governors Island, N.Y. He is one of the founders of the American Heart Association and also of the New York and San Francisco Heart Associations.

Colonel Clifford V. Morgan, Washington, D.C., has been awarded the Croix de Guerre with Palm from the French Republic for "exceptional services rendered during operations for the liberation of France".

The Yugoslav Medal for Services to the People has been awarded to Brigadier General Leon Fox field director of the United States Typhus Commission, and to three members of his staff. General Fox, was awarded the Order First Class, and the Order Second Class was given to Lt. Colonel Edward Murray, Cedar Rapids, Iowa; Lt. Colonel Charles Wheeler, Doon, Iowa; and to Naval Lieutenant Stafford Wheeler, a graduate of Harvard Medical School, who was killed in Bosnia April 13th. Evidence of the Typhus Commission's services is shown by the fact that more than two million persons have been immunized since the Commission came to Yugoslavia last January.

Lieutenant Colonel Langdon Parsons, Newton, Mass., has been awarded the Legion of Merit medal in recognition of his work in maxillofacial surgery among battle casualties on the Anzio beachhead and the main Italian front.

Captain Charles H. Burnett, Boston, Mass., was recently awarded the Bronze Star Medal for meritorious achievements in connection with military operations in the Mediterranean Theater of Operations. The citation pointed out that "by virtue of his zeal and scientific skill he carried out during this period field studies of blood and blood substitutes which were of outstanding value in promoting the correct usage of these agents in the treatment of the seriously wounded. His untiring efforts and devotion to duty reflect great credit upon himself and upon the Medical Corps of the Army of the United States."

New Drug Exhibit at the Academy.—The Committee on Drug Exhibits of the New York Academy of Medicine announces the opening of a new exhibit of drugs in Room 21 of the Academy on October 1st.

Awards to Army Nurses.—Members of the Army Nurse Corps have been awarded decorations totaling 1159, since December 7, 1941, according to an announcement by the War Department. The awards ranged from citations to the Legion of Merit. The greatest number have been Bronze Stars and Air Medals. There were two distinguished Flying Crosses; four Silver Stars; twelve Legion of Merit Awards; 579 Bronze Stars or Oak Leaf Clusters; 393 Air Medals or Oak Leaf Clusters in lieu thereof; five Soldier's Medals and sixty Purple Hearts. One hundred and three Unit Citations or commendations have been reported to this date.

Tropical Skin Disease Centers.—Surgeon General Norman T. Kirk has announced that the Army has established seven centers for the treatment of tropical skin diseases. These will be located at Wake-man General Hospital, Camp Atterbury, Ind.; Brooke General Hospital, Fort Sam Houston, Texas; Moore General Hospital, Swannanoa, N.C.; Harmon General Hospital, Longview, Texas; and in the U.S. Army General Hospitals at Camp Edwards, near Boston, Camp Butner, near Durham, N.C., and Camp Carson, near Colorado Springs, Colo.

Major Clarence S. Livingood, consultant in dermatology to General Kirk, explained that these centers would be devoted to the care of men returning from overseas, particularly the Pacific areas. He said that there was no basis for the fear of tropical skin infections spreading in this country, because practically none of these diseases are contagious and no patient with a transmissible skin disease would be allowed out of an Army hospital until he was noninfectious.

Postwar Medical Education at New York University.—New York University College of Medicine has announced a three point program of graduate and postgraduate education for returning medical officers. The college also announced that it had received from the W.K. Kellogg Foundation a \$150,000 three year grant to help defray the cost of an extensive education program for returning medical officers. It is believed by the officers of the University that four-fifths of the twelve hundred graduates of its medical school who have been serving in the armed forces will participate in some form of postwar medical education. The new courses will be designed for three groups of medical veterans: 1. Postgraduate group: Officers established in general practice, or in a specialty, who may have been unable to continue this type of work while in military service. This is a review course. 2. Graduate group: Physicians whose postgraduate training was interrupted and who are anxious to complete requirements for certification by the specialty boards. 3. Intern group: Those whose medical education and internship were curtailed by the accelerated wartime program. Refresher courses in practically every branch of medicine and surgery are also being planned. Dr. Donal Sheehan, acting dean of the Medical College, in making the announcement said that Dr. Clarence de la Chapelle, assistant dean and professor of clinical medicine, had been placed in charge of the postgraduate and graduate education.

Personals.—Dr. Francis G. Blake, dean of Yale University School of Medicine, and Dr. Kenneth F. Maxcy, professor of epidemiology at Johns Hopkins School of Hygiene and Public Health, have been awarded the American Typhus Commission Medal for "exceptionally meritorious service."

Dr. Charles M. Wenyon, protozoologist and retired director of the Wellcome Foundation Research Laboratories of London, has been awarded the Theobald Smith Gold Medal of the American Academy of Tropical Medicine.

Dr. Frederick E. Emery, associate professor of physiology, University of Buffalo School of Medicine, has been appointed professor of physiology and head of the department of physiology and pharmacology of the School of Medicine of the University of Arkansas.

Professor Charles-Edward Amory Wilson, chairman of the department of public health, Yale University, and for thirty years Anna M. R. Lauder professor of public health, has been appointed counsellor in charge of a group of investigators who will compile data to be used in creating a body to accredit institutions to give degrees of master of public health, doctor of public health and the diploma in public health, according to *Science*.

Dr. Victor C. Myers, director of the department of biochemistry, School of Medicine of Western Reserve University, Cleveland, Ohio, has been elected director of the newly established department of clinical biochemistry.

Lieutenant Colonel Harry W. West has been appointed State Secretary of Health for Pennsylvania.

Dr. Dean A. Clark has been appointed medical director of the Health Insurance Plan of Greater New York. Dr. Clark is a commissioned officer of the United States Public Health Service, assistant director of its public health methods division, with the rank of senior surgeon. He obtained leave from the service to take up the work on the health insurance plan.

Dr. Louis C. Kress has been appointed director of the State Institute for the Study of Malignant Diseases, Buffalo, N.Y. He has been associated with the Institute since 1919.

Dr. Harry J. Perlberg, Jersey City, N.J., was elected president of the Radiological Society of New Jersey at the recent annual meeting.

Dr. John P. McGovern, Washington, D.C., has been given the Borden Undergraduate Research Award in Medicine for his whooping cough investigations.

Dr. Charles M. Carpenter, associate professor of bacteriology and public health, University of Rochester (N.Y.) School of Medicine and Dentistry, has been sent to the Philippine Islands on a special mission by the Office of Scientific Research and Development. In cooperation with the medical corps of the Army, he will investigate the venereal disease situation.

Drs. James Wesley Jobling and Alwin Max Pappenheimer, professors of pathology at Columbia University, College of Physician and Surgeons, recently retired and have become professors emeritus.

Dr. Walter L. Treadway, Los Angeles, Calif., former assistant surgeon general of the U.S. Public Health Service, was given the honorary degree of doctor of science by the University of Southern California in the annual commencement held last June.

Medical Director of American Airlines.—Colonel Thomas C. Gentry, surgeon of the 14th Air Force of the United States Army Medical Corps, has been appointed medical director of American Airlines, Inc., succeeding Lieut. Col. Edward C. Greene, who has retired. He assumed his new duties on September 1st.

Colonel Gentry was graduated from Baylor College of Medicine, Dallas, Texas, in 1929, and did postgraduate work at the Mayo Clinic and at Harvard. He holds the Legion of Merit for his work in establishing emergency hospitals in China; the Distinguished Flying Cross and the Air Medal for his participation in the evacuation of sick and wounded in China and over the Hump into India. In addition to being made an Honorary Flight Surgeon of the Chinese Air Force, the Chinese government awarded him its Order of The Precious Tripod for meritorious service during the war.

Graduate Fortnight at the Academy.—The eighteenth Graduate Fortnight of the New York Academy of Medicine will be held October 8 to 19, 1945. The subject chosen for consideration is Contributions of the War Effort to Medicine, and the program will consist of morning panel discussions, afternoon clinics at the leading hospitals, evening addresses and scientific exhibits and demonstrations. At the first evening session, held on October 9th, Dr. Cornelius P. Rhoads, acting president of the Academy will deliver the address of welcome; Dr. William C. Menninger will deliver the Ludwig Kast Lecture, on Modern concepts of war neuroses, and Dr. Thomas C. Rennie will read a paper on What can the practitioner do in treating the neuroses? At other evening sessions, the speakers will be:

Lieut. Col. Roy R. Grinker, (M.C.), Sedation as a technique in psychotherapy; Col. Howard A. Rusk, (M.C.), Planned convalescence; Dr. David P. Barr, Cornell, Physiological and psychological effects of bed-rest; Dr. John H. Powers, Evaluation of early post-operative activity; Dr. George W. Thorn, Harvard, The use of human serum albumin in the treatment of edema of renal and hepatic origin; Dr. Joseph Stokes, Jr., University of Pennsylvania, The plasma globulins in prophylaxis and treatment; Dr. Dickinson W. Richards, Jr., Columbia University, Mechanism of shock; Dr. S. Howard Armstrong, Harvard, Management of blood preservation and blood substitutes; Col. D. C. Elkin, (M.C.), Treatment of peripheral arterial injuries (the Carpenter Lecture); Dr. Arthur W. Allen, Massachusetts General Hospital, Thrombosis and embolism; Lieut. Com'dr T. I. Hoen, U.S.N., Reconstructive surgery of nerves; Dr. Philip D. Wilson, Reconstructive surgery of the joints; Dr. Virginia Kneeland Frantz, Columbia University, New absorbable hemostatic agents; Dr. Jonathan E. Rhoads, University of Pennsylvania, The use of penicillin and streptomycin in surgical infections; Dr. James A. Shannon, New York University, Chemotherapy in malaria; Dr. John P. Peters, Yale University, Nutritional needs in acute and chronic illness; Dr. L. Emmett Holt, Jr., New York University, Reevaluation of the vitamins; Dr. Robert L. Levy, Columbia University, The stimulus of war to cardiology; and Dr. H. W. Brown, Columbia University, Filariasis.

The morning panel discussions will be devoted to psychiatric rehabilitation, physical reconstruction, vascular surgery, and ununited fractures.

The exhibits will consist of charts, graphs, photographs, roentgenograms, specimens and demonstrations. Outstanding contributions by the Armed Forces will constitute an important feature of the exhibit. Two periods each evening will be devoted to showing motion pictures illustrating the course and treatment of diseases and injuries of the war period. There will also be an exhibition featuring the drugs currently employed in the treatment of disease, and a special exhibition of books illustrating the general subject has been arranged by the staff of the Library.

Obituary

Henry Keller, M.D.

Dr. Henry Keller, formerly of New York, died in Jerusalem, Palestine, on November 22, 1944, at the age of sixty-seven years. He was born in Cracow, Poland, on December 3, 1877, and came to the United States in 1893. He received his M.D. degree from New York University College of Medicine in 1902, and did postgraduate work in London, Italy, Vienna and Berlin. He was an orthopedic surgeon, and at one time was professor of orthopedics at the New York School of Clinical Medicine and the West Side Hospital and orthopedic surgeon at several hospitals in New York. In 1926 he was elected a member of the house of delegates of the Medical Society of the State of New York, representing the New York County Medical Society. He was Past Sublime Healer and member of the governors of the Physicians' Square Club of Greater New York and Superior Chaplain of the Association of Physicians' Square Clubs of America, a founder and president of the American Hebrew Speaking Medical Association, and a member of the board of directors of the American Jewish Physicians' Committee for the building of a Medical School in Palestine.

In 1932 Dr. Keller went to Palestine to carry on his work among the crippled children in that country, and thereafter, until 1938, when he made Jerusalem his permanent home, he divided his time between New York and Palestine. In 1937 he established an institute "Palestine Society for Crippled Children", and founded also the "Society for the Aid of the Crippled in Palestine" in America.

Dr. Keller was the author of *Modern Hebrew Orthopedic Terminology and Jewish Essays* (1931), and has published many original articles on medical topics, orthopedic surgery, medical history, Judaism and Zionism. Of particular value are his studies of spina bifida occulta, carried on in America, in the Near East, and in Palestine. He was a frequent contributor to the *MEDICAL RECORD*, and was this journal's Palestine correspondent for a time.

Dr. Keller was a man of ability and sincerity, a distinguished surgeon, author and organizer, and won esteem and affection. He was a scholar in the field of medicine and Hebrew letters, and made important contributions in these fields. He was a humanitarian and an ideal surgeon, and contributed much to the welfare of crippled children in Palestine. He loved people and particularly the patients, and his life was full of useful activities for the benefit of mankind.

—S. R. KAGAN, M.D.

Book Reviews

Modern Nutrition

Dietotherapy. Clinical Application of Modern Nutrition. Edited by MICHAEL G. WOHL, M.D., associate professor of medicine, Temple University School of Medicine. With a foreword by RUSSELL M. WILDER, M.D., Ph.D., professor of medicine, Mayo Foundation. With ninety-three illustrations. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 1029. Price \$10.00.

During the first world war the nutritionist and the physician stressed the amount of food. Since that time, nutritional knowledge has advanced tremendously. Now, the nutritionist stresses the kind of food, and the physician is aware of the value of balanced or adequate diet: witness the nutritional yardstick recommended by the National Research Council. The practicing physician is finding nutritional facts a useful tool, not only in therapeutics, but also in "constructive medicine" and in the supervision of public health. The present state of knowledge of nutrition admittedly is incomplete. It nevertheless is quite sufficient to demand revision of many former practices of diet therapy, which forms the subject of the chapters in Part III of this book.

Therapeutic diets all too frequently have been planned shortsightedly, with resulting neglect of the long time interests of the patient. The objective, for example, may be the avoidance of irritation of a duodenal ulcer. A bland diet is prescribed with alkalis to neutralize the gastric acids. Such diets frequently have been inadequate with respect to several vitamins, if not to protein. Mixing alkali with the food has the additional disadvantage of favoring destruction of certain vitamins. However, even if the objective is only to promote their quick healing, it should be obvious that the new-formed tissue in the crater of the ulcer will be benefited by a blood supply that contains an optimal amount of every nutrient required for cellular life and reproduction. Before insulin became available the diabetic diet was restricted perforce to the patient's tolerance for carbohydrate. Yet, although insulin has been available for more than twenty years, many physicians continue to make use of diets that are grossly inadequate, not alone in calories but in protein as well, not to mention salts and vitamins. The diets prescribed by some physicians for the control of allergies provide other examples of unjustifiable procedure. Many such regimens have produced deficiency disease. Yet some evidence suggests that allergy itself may be occasioned by unbalanced diets.

To be borne in mind with hospital patients is the possibility that the patient may be badly nourished and suffering from deficiency conditions on his admission to the hospital, deficiencies ascribable to previous anorexia, vomiting, diarrhea, the type of diet instituted therapeutically by himself or his physician, and many other causes. Goldsmith detected evidence of deficiency of riboflavin or niacin in a high percentage of patients admitted to the medical wards of the Charity Hospital, New Orleans. The most common abnormal findings were changes in the tongue; lesions of the skin, eyes and lips occurred in that order of frequency.

To secure a smaller baby, prenatal diets in the past were made inadequately in calories with no attention

paid to increased requirements in pregnancy for calcium, protein and several vitamins. Recently reported studies, well controlled, show that adequately nourished women have fewer complications in pregnancy and labor than inadequately nourished women even though the babies are longer and heavier. The healthiness of the babies has likewise been strikingly superior to that of babies born to women on poor diets. Responsibility in the matter of nutrition is not limited to providing the diet for the patient. All recent dietary surveys reveal the pressing need in many families for more instruction in good eating. Food habits could be adjusted with advantage in a very substantial part of the entire population, and physicians are most favorably situated to instruct the public through their patients in the importance of everyday diet indicated in this monograph.

Peptic Ulcer

The Treatment of Peptic Ulcer. Based Upon Ten Years' Experience at the New York Hospital. By GEORGE J. HEUER, M.D., professor of surgery of Cornell University Medical College and surgeon-in-chief of the New York Hospital. Assisted by CRANSTON HOLMAN, M.D., and WILLIAM A. COOPER, M.D., Cornell University Medical College. Philadelphia, London, and Montreal: J. B. Lippincott Company, 1944. Pp. 118. Price \$3.00.

This monograph is a statistical study of 1139 case histories of peptic ulcer diagnosed and treated for a period of ten years at the New York Hospital. Both medical and surgical aspects of the disease are presented with little elaboration of details or therapy. The medical section is devoted to both ambulatory and hospital cases, stressing the relation of hemorrhage and malignancy to gastric ulcer. Unfortunately, the psychological aspects of the problem receive precedence over the psychosomatic. Surgical aspects are concerned with gastroenterostomy as compared with gastric resection as well as chapters on perforations and gastric secretion. The author proposes to clarify controversial facts so that rational therapy may be individualized for the difficult case. No attempt is made to stress one favored therapeutic approach, but the surgical is predominant.

Differential Diagnosis

An Index of Differential Diagnosis of Main Symptoms. By various writers. Edited by HERBERT FRENCH, M.D., F.R.C.P., assisted by ARTHUR H. DOUTHWAITE, M.D., F.R.C.P. Sixth edition. With seven hundred and ninety-eight illustrations, two hundred and thirty-one colored. Baltimore: The Williams and Wilkins Co., 1945. Pp. 1128. Price \$17.00.

The first edition of this great work was published in 1912. The fifth edition came out in 1936, and there had been no republication until this present sixth edition. One wonders how it has been done at all, since the printing plant of the John Wright & Sons of Bristol received "direct hits by enemy bombs"; paper supplies have been unobtainable; authors were delayed in revising their contributions, and there were other difficulties concerned with death and the general confusion which reigned while the German start was in its ascendancy. Recent graduates were handicapped by having no similar text available; hence "old copies" were highly prized when they could be obtained.

From the first, French's guiding principle in making a diagnosis was to determine the chief complaint or symptom, set down all known diseases having this

symptom, and then to eliminate as many conditions as seemed not to meet the known facts. The body of the book deals with symptoms, but one may well consult the general index of 213 pages in the back of the book first, then proceed to read the text description of the varying conditions. There are some ninety thousand references! The use of colored illustrations is especially helpful in such conditions as cyanosis (p. 215, for example). Definitions are incisive, simple, comprehensive. On page 199 there is a heading, *Cough*, which is defined as "... a signal that something is irritating the cough centre in the medulla oblongata, or a branch of the vagus nerve, or the phrenic nerve ... it is nature's effort to remove something". The first question to ask a patient is: Do you bring anything up? What do you bring up? Any sputum obtained should be studied by a bacteriologist, and it is well to know also whether elastic fibers are present also, since they suggest destruction of tissues. A report on b. Tuberculosis is not enough; we need to know all other organisms present. Then one may make a vaccine and instill medication into the trachea. This is gratuitous information, however, since this is not a book on treatment. Continued use of this book may make an astute diagnostician out of any good clinical observer. And no treatment can be entirely satisfactory unless the diagnosis is correct.

Human Development

Ourselves Unborn. An Embryologist's Essay on Man. By GEORGE W. CORNER. Based on the Terry Lectures given at Harvard University in March, 1944. Second Printing. New Haven: Yale University Press, 1944. Pp. 189. Price \$3.00.

The late Dwight H. Terry, of Bridgeport, Conn., established a fund of \$100,000 some twenty-one years ago to make possible the delivery and publication of "Lectures on Religion in the Light of Science and Philosophy." From these lectureships, no earnest seeker after truth can be excluded because his views seem radical or destructive of existing beliefs. Dr. Corner needs no apology or explanation, for his work at the Carnegie Institution in Washington and in the Department of Embryology, Johns Hopkins Medical School in Baltimore, have fitted him eminently as an expositor of the science of embryology in its relation to our personal nature and to the world around us. He says, "... those who seek to comprehend the spirit will always need to understand the body." But the reader need not be a biologist or even a student of biology, for here is a simple description of human development from the fertilization of the ovum. What everyone of us must marvel at, is that in only nine months from the day of union of a spermatid particle with an ovum, a human being comes forth into the world fully prepared to live, thrive, and grow in this strange new environment, and, possibly, achieve great good in lifting his kind a step higher in the scale of evolution to the "perfect man". Here we have a fine illustration of "the prodigality of nature" in that of all the millions of eggs cast off from the ovaries, and of all the millions of spermatozoa which migrate from the testicles and are washed away or otherwise thrown out, only one cell from each male and one from each female combine to bring forth a new body (and soul). This seems like "prenatal fate and foreordination" which so greatly interested theologians in years past, and so often led to useless controversies and bitterness. The second lecture bears this heading

and is one of the most interesting, because of its personal touch and broad human interest.

Books of this scholarly type, which concern themselves with the great mysteries of life and death, and of "the years between", are always welcome on the doctors' night table. This one, while simple, is yet profound and altogether delightful.

Constitutional Pathology

Constitution and Disease. Applied Constitutional Pathology. By JULIUS BAUER, M.D., professor of clinical medicine, College of Medical Evangelists, Los Angeles. Second Edition. Revised and enlarged. Illustrations. New York: Grune and Stratton, 1945. Pp. 247. Price \$4.00.

The first edition of this book was published in 1942. The favorable reception given to it necessitated a second printing and also gave opportunity to make certain amplifications and citations from the most recent literature, and also adding a bibliography and index.

Psychosomatic medicine has been much written about within the past few years. It has a definite place in diagnosis, and is, in essence, the application of astute observation to the patient as a personality, to the study of the human being as he lives, thinks and acts, in short, to the study of human nature from a medical viewpoint. The author calls attention to the miracle of the development of a complete human body within nine months from the date of fecundation and fertilization of an ovum, but even more remarkable is the "hereditary predisposition" to resist or submit to environment, favorable or unfavorable. The cells fully exemplify this intangible influence which we used to call a family affair. Our medical forefathers relied greatly on family history, and we would do well to pay even more attention to it than we are sometimes wont to do. For example, "seven out of eight children ... had a displaced lens (eye) due to aplasia of the suspensory ligament." Their mother had it! Bauer knew three brothers all of whom died of coronary thrombosis at fifty. Otolologists often determine a history of otosclerosis in the father, mother or near relative of a deafened patient.

C. Stein wrote of "constitutional pathology in disease of the ear," a sort of constitutional biological inferiority of the auditory organ. Many other instances are recorded by clinicians working in various fields. There is, to be sure, some danger of carrying the analogy too far; for example, what connection can there be between absence of frontal sinuses, not a rare anomaly, and the presence of bronchiectasis? However, the possibilities of establishing a connection between seemingly divergent factors and conditions make for alertness in diagnosis, and a reading of Dr. Bauer's book will do just that.

Physical Diagnosis

Physical Diagnosis. By RALPH H. MAJOR, M.D., professor of medicine, University of Kansas. Third edition, revised. With 457 illustrations. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 444. Price....?

This delightful presentation of physical signs produced by physical causes is dynamic rather than static. It is complete panorama of diagnostic methods indispensable to accurate diagnosis, eliminating laboratory procedures. The subjects include pain, examination of various parts of the body with emphasis on the heart, lungs, abdomen, extremities and nervous system. Illustrations clarify the text and the bibliography reveals the source of recent diagnostic advances.

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OCTOBER 1945

Medicolegal Notes

Eating Between Meals

In an action against a corporation for overtime pay under the Fair Labor Standards Act of 1938, the Michigan Supreme Court holds, *Basik vs. General Motors Corporation*, 19 N.W. 2d 142, that cooks, wagon attendants, truck drivers and kitchen help in the employer's cafeterias and lunch wagons, who prepared, distributed and served food to other employees of the corporation engaged in the production of goods for commerce were engaged in "the production of goods for commerce" and entitled to overtime pay benefits, under evidence including the testimony of a physician, a director of the Research Medical Institute of the U.A.W.-C.I.O.; another, an industrial nutritionist employed by the Office of Distribution of the War Food Administration, who is an experienced dietitian. These witnesses testified that fatigue among this class of employees is frequently due to inadequate food resulting in a lower output, emotional disturbances on the part of workmen, which cause a greater degree of carelessness resulting in a larger number of accidents. The medical witness expressed the opinion that production

efficiency is increased from nine to fifteen percent if a little food is obtainable between meals. The nutrition expert said that workers who supplemented their three meals a day with additional feedings will maintain a higher production level throughout the entire day, and therefore, a higher total production.

Thrombosis as an Accidental Injury

In an action under the New York Workmen's Compensation Act against an amusement corporation for the death of an employee engaged as an extra waiter to serve guests at a party sponsored by a longshoremen's association, it appeared that the employee's duty was to serve drinks to the party and every order required that he descend about fifteen to twenty steps to the bar located on the main floor, fill his order and return to a balcony by climbing the same steps. After frequent trips up and down he complained of being sick and was compelled to stop work. The board's finding that the employee's ordinary occupation was not strenuous, but that on this night he was subjected to "an unusual and excessive expenditure of effort, from which he suffered accidental injuries in the nature of a precordial oppression, a secondary thrombosis and a coronary thrombosis, which resulted in his death", was sustained by the evidence. *Mark vs. Myrod Amusement Corporation*, 45 N.Y.S. 2d 748, 267 App. Div. 844. Leave to appeal was denied by the Court of Appeals 292 N.Y. 725.

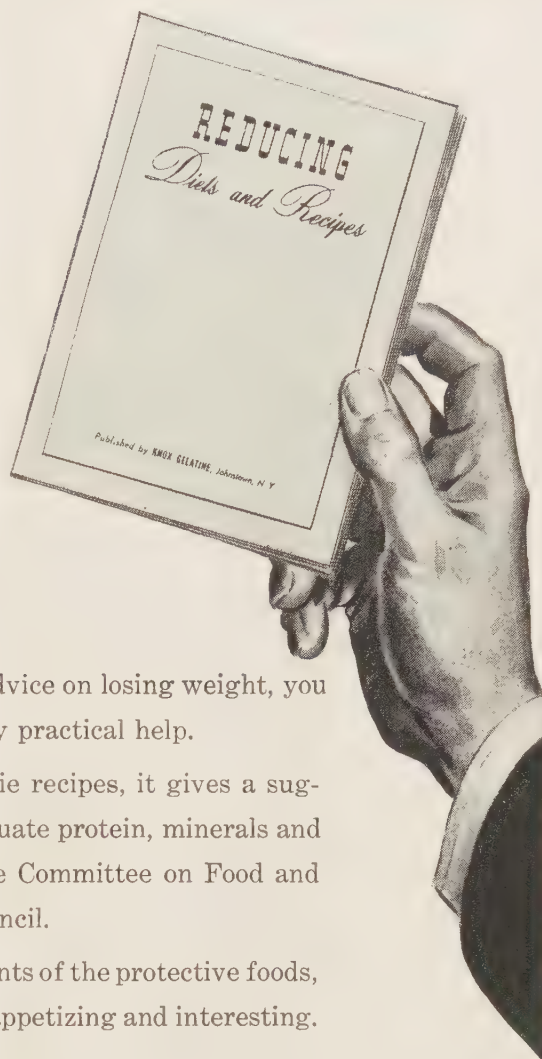
Releases

In the absence of fraud or coercion, the amount paid for the release of a claim for injuries is of no consequence if the demand for damages was wholly unliquidated. "If there was a meeting of the minds of the parties, without fraud or unfair conduct on either side, the contract must stand, although subsequent events may show that either party made a bad bargain, because of a wrong estimate of the damages which would accrue". 23 R.C.L. 385. "If the consideration be found grossly inadequate, however, it could have a bearing upon the question whether the release was obtained by fraud. The inadequacy may be so gross or shocking that it may be held a badge of fraud, or it may tend to establish constructive fraud. If not gross or shocking, while it is not sufficient to avoid a release on the ground of fraud, it may constitute a circumstance to be considered in connection with the other facts of the case to determine as to the existence of fraud. *Ross vs. Koenig* (1942) 129 Conn. 403, 28 Atl. 2d 875.

Exemption of Hospital Property from Taxation

The property of a tuberculosis sanatorium corporation was not exempt from taxation as "used exclusively" for carrying out the purposes for which the corporation was organized where the institution was closed by a resolution of its directors for the duration of the war or until such date as the directors might thereafter deem desirable. Nor was it exempt under the New York statute (Tax Law §4, subd. 6) exempting the realty of hospital corporations held exclusively for the purposes specified therein though not in actual use for such purposes. *Application of Loomis Sanatorium*, 268 App. Div. 37, 48 N.Y.S. 2d 852.

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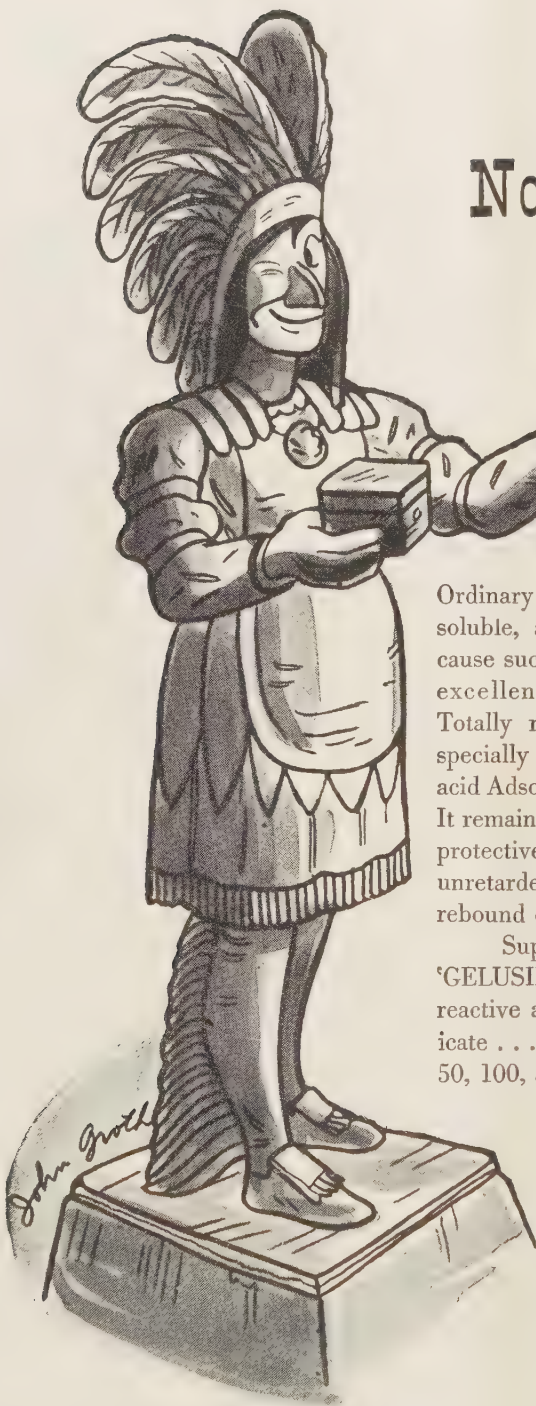
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TRUTH OF THE MATTER

What Chickens Did For Biology

T. SWANN HARDING

Falls Church, Va.

A hen is neither a stimulating nor an exciting creature. Customarily regarded as a farm asset, she has also imparted a good deal of information to physiologists and doctors. Our knowledge of the early embryology of vertebrates rests largely upon the general body of facts accumulated about the development of the chick in the shell.

In the fifth century B.C. Hippocrates advised his students to verify his teachings about human embryology by daily examinations of incubating eggs. Twenty-three hundred years later many medical students were still being instructed by this method. Before Hippocrates, Aristotle wrote a description of the development of a chick embryo which remained reasonably accurate until Fabricius lit into it in the seventeenth century.

Up to the time of William Harvey (1578-1657) there existed no clear conception of the material from which either bird or mammal embryos began development. Harvey picked out the little light spot in the egg yolk, the cicatrix as he called it, or the germinal disk as it is now usually dubbed, and showed that this blastoderm was the original center of growth.

From this can be traced the doctrine that from eggs come all things. Harvey, discoverer of the circulation of the blood, was really quite a hound also for observing chick embryos. He is said to have based his *Anatomical Exercitations on the Generation of Animals* upon such study. A little later Malpighi used his microscopes to find the neural groove, the somites and the optic vesicles, characteristics also of all vertebrates at early developmental stages.

Malpighi's studies were published in 1672. They established the chick in the best scientific circles as the animal for microscopical and macroscopical embryological studies. Such use of the chick has continued until the present day, as examination of current specialty journals will prove. The chick has also taught us much about abnormal and teratological as well as normal development. This is in part because of the difficulties in the experimental manipulation of mammalian embryos, while the chick embryo is easy to manipulate. Indeed it was only a few years ago that the Bureau of Dairy Industry, Department of Agriculture, managed to make its movie showing the development of the fertilized ovum of the rabbit.

Man's knowledge of the physiology of reproduction was much clarified by De Graff's discovery of mammalian embryo ova in 1672, and by Ham's observation, in 1674, of myriads of minute animalculæ which are now known among the more refined gentry as spermatozoa. Ham is reported first to have detected these important "worms" in the semen of a rooster. Meanwhile Leeuwenhoek had also had luck and stated that, in the semen of the rooster, he had found a multitude of little "snakes" or "eels", which he could not locate anywhere in the hen. Apparently, being less fastidious, the rooster could accomplish this miracle by methods best known to himself.



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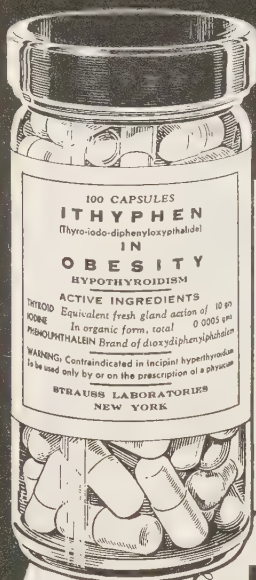
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Another dramatic demonstration of the chicken's scientific utility took place in 1882. Pasteur himself arranged it at the farm of Pouilly le Fort near Melun in France. He was trying to convince a skeptical world that he could render animals resistant to anthrax. Twenty-five sheep were twice inoculated with attenuated organisms and twenty-five others were segregated as controls. When the virulent dose was given both groups a few days later the control sheep all passed on to greener pastures in a better world, while the inoculated sheep remained here in trial and tribulation.

That experiment was only possible, however, because Pasteur had first discovered that a deadly organism such as that causing anthrax could be attenuated until capable of causing only a mild infection which would render a body resistant to a more powerful dose. That discovery Pasteur made by using the organism which causes fowl cholera. This discovery led far and thus the hen proffered aid to the young science of bacteriology.

She also helped endocrinology. The fowl's secondary characteristics are easily modified by the influence of hormones or gonadal solutions, or by complete gonadectomy. The feather follicle is also an excellent indicator of thyroxine. Hence the fowl is favored for study of sex and the secondary sex characteristics. Indeed, the first actual demonstration that endocrine secretions existed was made by Berthold, in 1849, when he transplanted fowl testes and caused typical male comb growth in the recipients of his generosity. Of course Berthold did not at the time appreciate the importance of what he had done, but doubtless the chickens did.

Eijkman, famous for his 1897 experiments on beriberi, was prompted to make his discovery of the etiology of this disease by the fact that fowls fed garbage at the hospital of a Javanese prison, where he was stationed, contracted paralysis. This led him to the further discovery that fowls and pigeons which ate whole instead of polished rice did not contract paralysis, hence he assumed it was of dietary origin. This was the first time such a disease had been produced experimentally. Here dawned the modern era of nutrition science.

The chicken's contributions to genetics have also been notable. Its rapid rate of reproduction, which correlates nobly with the rapidity of its technique at coition, equips it for special use here. It is also the first species to bear witness that Mendel's laws apply to the animal kingdom.

William Bateson's work, as presented to the Evolution Committee of the Royal Society, covered research with several plant species and with poultry. His data showed conclusively that rose comb, pea comb, and the white of white leghorns were all simple dominant characters. These experiments began in 1898; the report was presented December 17, 1901. De Vries rediscovered Mendel's account of his laws in 1900—along with Correns, von Tschermak, and, obviously, William Bateson.

As F. B. Hutt remarked at the end of reviewing such material, and more, in *Science*, November 17, 1933 (78:450-51): "From this auspicious beginning the fowl has continued to provide valuable material to the geneticist, including one of the first cases known

(Continued on page 640)

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Tuberculosis

Less than a generation ago tuberculosis held uncontested leadership among the causes of death; today, its virtual eradication is in sight. It is no longer a fantastic dream for those of us who have been active since the initial stages of the campaign against tuberculosis in America to expect to witness the final stages as well.—Louis I. Dublin.

* * *

We must always remember that good health is itself one of the best preventives of tuberculosis.—Fred H. Heise, M.D., National Tuberculosis Association *Bulletin*, Jan. 1945.

* * *

No person needs to be told that he has "a spot on the lung." If the condition is as clinically insignificant as the term suggests, the patient should be told that he has a scar from a previous tuberculous infection—one that needs an occasional check-up or one that needs no further observation. Or, when the diagnosis is certain, the patient should be told that his lungs are normal. For, while "a spot on the lung" is often the obscured beginnings of destructive disease, it is, in other cases, the starting point for tuberculophobia and anxiety neuroses, conditions that are no less crippling and hardly more easily curable than tuberculosis itself.—Max Pinner, M.D., *NTA Bull.*, Jan. 1945.

* * *

Swiss physicians report that diet deficiencies in France in calories, protein, minerals and vitamins are producing deficiency diseases, delaying growth, and greatly lowering resistance to acute and chronic infections in French children. Tuberculosis, rickets, scurvy and dermatitis are rapidly increasing and living condi-

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tions as well as hunger are having a serious effect on delinquency and on the mental and social attitudes of children. In some countries there are reports of alarming increases in vision and hearing defects. In all these countries hunger is combined with suffering from cold, due to lack of fuel for homes and to lack of clothing and shoes.—Martha Koehen, Ph.D., *Ohio State Med. Jour.*, Sept. 1944.

* * *

As a method of tuberculosis case-finding, the screening of large groups of apparently healthy individuals by means of chest x rays is here to stay. It should not replace the recognized routine methods of case-finding by means of examination of individuals who have been in close association with tuberculous patients or who have symptoms referable to the lungs. Rather, it should serve as an excellent auxiliary method for the discovery of new cases and in that way provide to health departments many additional opportunities for the promotion of their tuberculosis control programs.—William Siegal, M.D., *Health News*, Nov. 13, 1944.

* * *

No plan for tuberculosis control in industry is complete unless education on the subject is continuous and has been made a large part of the program. There is much skepticism in some of the workers as well as in the management of the value of educational measures. Yet no one is willing to deny the insurmountable difficulties which obstruct efforts to prevent disease where ignorance of the dangers and of the protective possibilities exists. The objective is to impart information which will function practically in the immediate routine of our common daily life.—T. Lyle Hazlett, M.D., *Ind. Med.*, Mar. 1944.



COURAGE

In the present victory and the long, bitter struggle which won it, America has once again shown the world that through good times or bad, we as a nation and as individuals proudly wear the bright badge of courage.

On the health front at home, courage has been no less in evidence. The determined will of overworked Doctors to combat both normal and wartime ills will stand as a bright page in the history of America's united efforts during the recent conflict.

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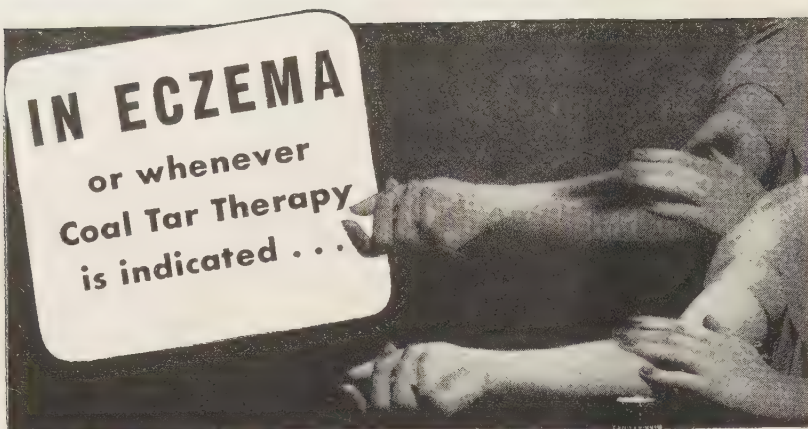
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Prenatal Tests

A bill has been introduced into the Ontario Legislature by Dr. Percy Vivian, Minister of Health, aimed at halting the spread of syphilis and gonorrhea to children, according to *The Canadian Doctor*. The bill would add a section to the Venereal Diseases Prevention Act, 1942 as follows: "It shall be the duty of every physician who attends any pregnant woman to perform such tests for the purpose of ascertaining whether or not she is infected with venereal disease as may be prescribed in the regulations."

The United States has made considerable progress in similar legislation. The first law requiring a premarital examination of both partners for syphilis was passed in Connecticut in 1935, and the first laws requiring prenatal blood tests were passed in 1939 by the states of New Jersey, New York and Rhode Island. Similar legislation in other states followed in rapid order, so that as of January 1st last, there were thirty states having laws requiring premarital examination for syphilis and thirty requiring prenatal examinations for this disease. Twelve of these states require an examination for other venereal diseases, and in two the examination covers various diseases. It is generally conceded in the United States that the rapid progress made in the enactment of premarital and prenatal laws for examination for syphilis has done much toward preventing the spread of venereal disease.

The Tropical Institute in Basel, Switzerland, is now established in a fully equipped building. Scientific studies affecting the tropics will be undertaken, and special training will be given to students who wish to go to the colonies.

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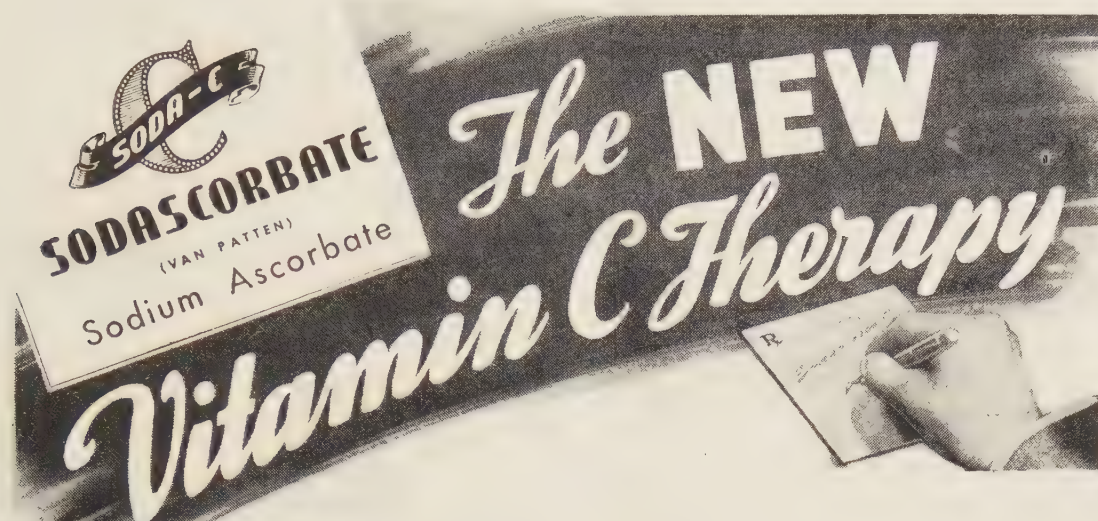
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Ship for Public Health

A new kind of public health project—a mobile unit—will be in operation in southeastern Alaska this year, according to *The Bulletin* of the Los Angeles County Medical Association. The project is designed to furnish medical, nursing, x ray, diagnostic, laboratory, and sanitation services to the many areas that previously have received little or no public health services. The unit will consist of a vessel of approximately sixty-five feet, its crew and a physician, nurse-technician, and occasionally a sanitation officer. The vessel is to be equipped with an x ray laboratory for examining suspected cases of tuberculosis and crippled children, and a bacteriological laboratory which will enable the personnel to make the examinations necessary for the diagnosis of contagious diseases and the control of epidemics. Immunizations will also be done.

Laxatives

Laxatives are an essential part of our medical armament, says the *Nassau Medical News*, published by the Nassau County (N.Y.) Medical Society. In the opinion of a number of druggists interviewed, forty-five to seventy-five percent of all medicines sold are either pure laxatives or contain a laxative as their principal ingredient, the article continues.

“In the opinion of medical historians, laxatives were the first medicines known to mankind. The Greek physician, Hippocrates, gave laxatives the name cathartics, which means cleansers. The Romans translated this into purgatives, which also means cleansers.” The report concludes with the caution that people should avoid acquiring the laxative habit, declaring that a majority of patients suffering from colitis had been laxative “addicts.”



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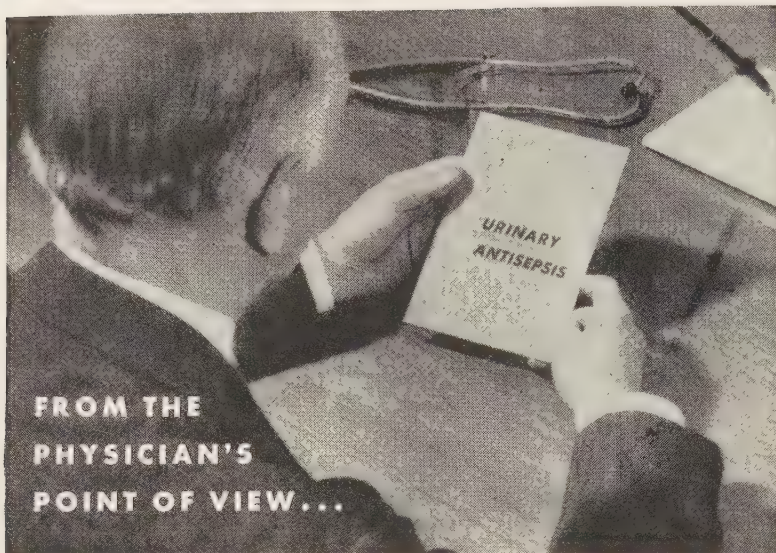
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Syphilis Among English Rulers

No fewer than six kings of England are believed to have died primarily of syphilis, and at least two of these seem to have passed on the infection, says the *Urologic and Cutaneous Review*. Edward III, easily among the greatest of English Kings, and his remarkable son, John of Gaunt, appear to have died of this disease. Henry VIII had a series of stillborn children, a fact strongly indicative of syphilis. Cardinal Wolsey was accused of having given him syphilis by whispering in his ear, but as Haggard explains, there were other and more potent sources of infection. His son, Edward VI, died at an early age of what appears to have been a combination of congenital syphilis and tuberculosis. His daughter Mary shows in her portraits the facial expression quite typical of the disease; and it might be added that Elizabeth likewise possessed some of the stigmata characteristic of syphilis.

Physical Fitness

When a nation goes to war, physical fitness of the young men of the country is a vital matter. Fortunately or unfortunately, fitness in our modern civilization, though desirable, is not so essential. Whether a man can chin himself seven times, or jump two feet, is not so important, but maintenance of good health is important. We can recollect many examples of individuals who would be rejected for military service but have been outstanding in business, the professions and the arts. These men and women have triumphed in spite of physical disabilities.—*Minn. Med.*, Dec. 1944.



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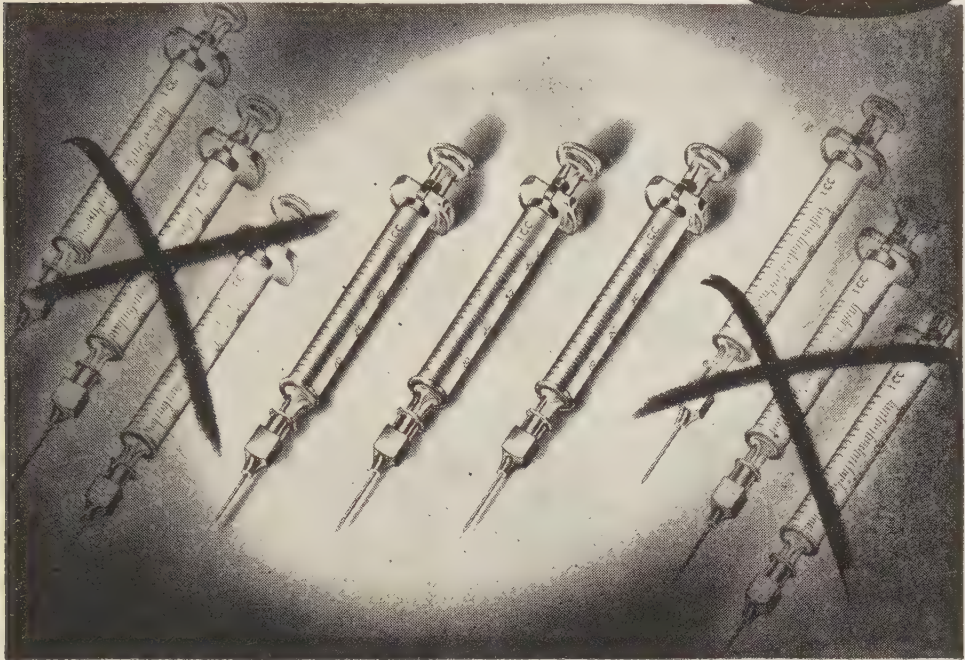
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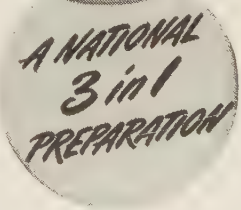
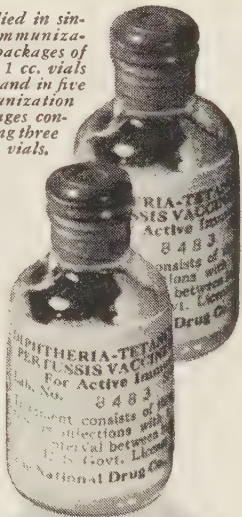
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New Group of Sulfonamides

G. R. Goetchius and C. A. Lawrence (*Jour. Bacteriology*, August 1945) report that a new group of sulfonamides, never before tested for antibacterial properties, has been shown to be almost as effective against a sulfonamide-resistant strain of gonococcus as against other strains. Another important property of this group, according to the authors, is its neutral reaction to para-aminobenzoic acid. This acid, which is present in the gastrointestinal tract and in pus, inhibits the action of many of the sulfa compounds, seriously reducing their effectiveness.

Clinical tests are now being conducted, using sulfanilyl-3, 5-dibromoanilide, the most active member of the new group. This compound was found to be effective in the laboratory against types I, II and III pneumococci, *Streptococcus pyogenes*, *Staphylococcus aureus*, *Clostridium welchii*, *Clostridium tetani*, *Shigella paradyserteriae* (Hiss), *Vibrio cholerae*, meningococci, and the gonococcus.

Schering Corporation Appoints Veteran as Southern District Supervisor

Perry L. Stucker, after nearly three years in the Army, becomes southern district supervisor for the Schering Corporation, manufacturers of endocrine and pharmaceutical preparations. Mr. Stucker will supervise Schering service in Oklahoma, Texas, Louisiana, Alabama, Georgia and Florida, and will be located in Atlanta. He came to Schering in 1941, as assistant sales manager, and left that position the following year to enter the Army.

Another appointment is that of Allan A. Miller to the position of metropolitan district supervisor of the Schering staff in New York. Mr. Miller has been covering the Manhattan and Brooklyn territories for Schering since 1942.

These appointments represent part of Schering's expansion program to facilitate supplying essential endocrine and pharmaceutical products to doctors and druggists.

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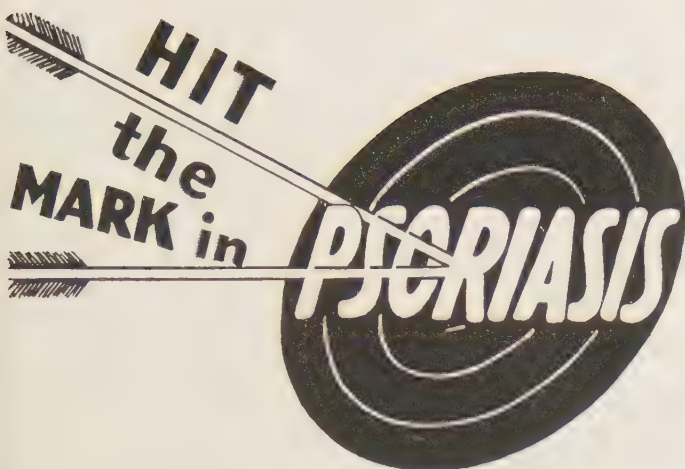
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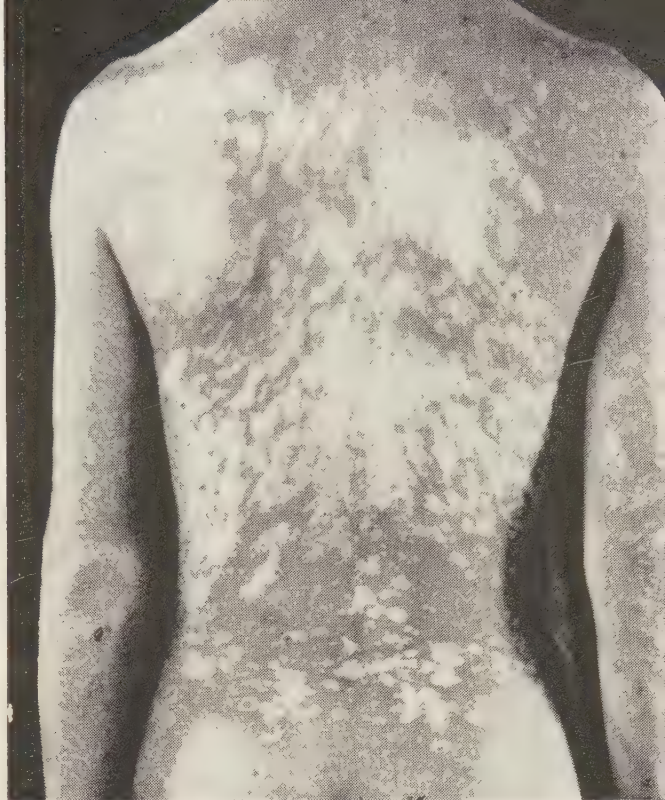
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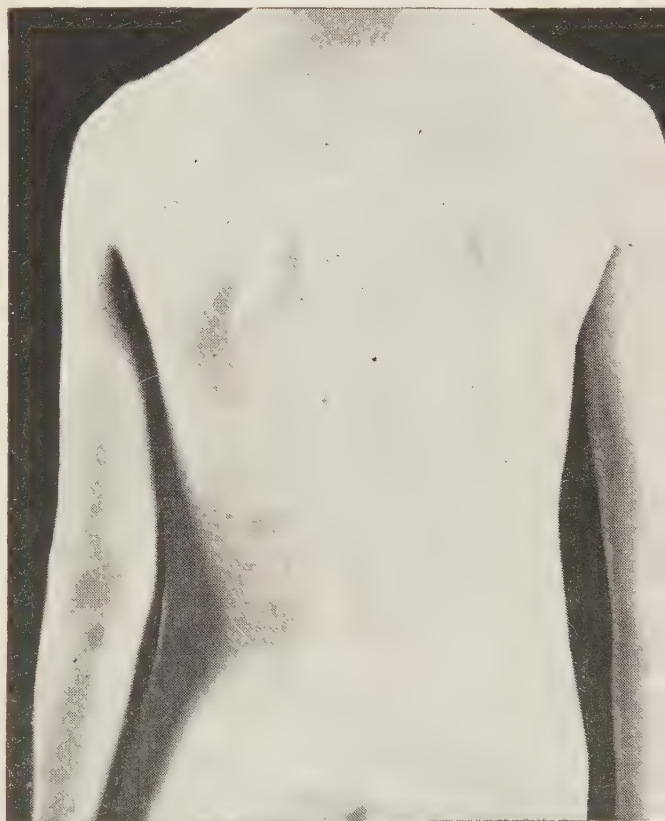
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Cost to Industry of the Common Cold

Dr. Joseph H. Kler, New Brunswick, N.J., says that one hundred million working days are lost to industry each year on account of the common cold, according to a press release from the Office of Pharmacal Information, and the cost is somewhere between one half and two billion dollars annually. While the exact cause, prevention and cure of the common cold is not known, Dr. Kler has several theories. He finds that smoking has little effect on colds, and that staying home has no apparent effect on the duration of a cold. He reports fewer colds in air conditioned plants and believes that more colds start in draughty places. Exercise is important also, he says, as persons who walk about during their work contract fewer colds than those who sit all day. Women have more colds than men and the attacks are more severe, but the incidence in both men and women decreases with age.

David Gruby

In 1842, Long operated under ether anesthesia and Gruby contributed to tinea tonsurans, hence, Gruby's disease. David Gruby was born in Hungary in 1810. He studied in Vienna and specialized in anatomy. Restrictions against Jews operating turned Gruby to microscopy and he went to Paris in 1839. He published his observations on tinea and favus, and the type of work he did was revived by Sabouraud. Although Schoenlein first demonstrated the fungus which Remak named after him, he did not recognize its etiological significance, which was first demonstrated by Gruby. Gruby died in 1892.—From the published work of Dr. Herman Goodman.

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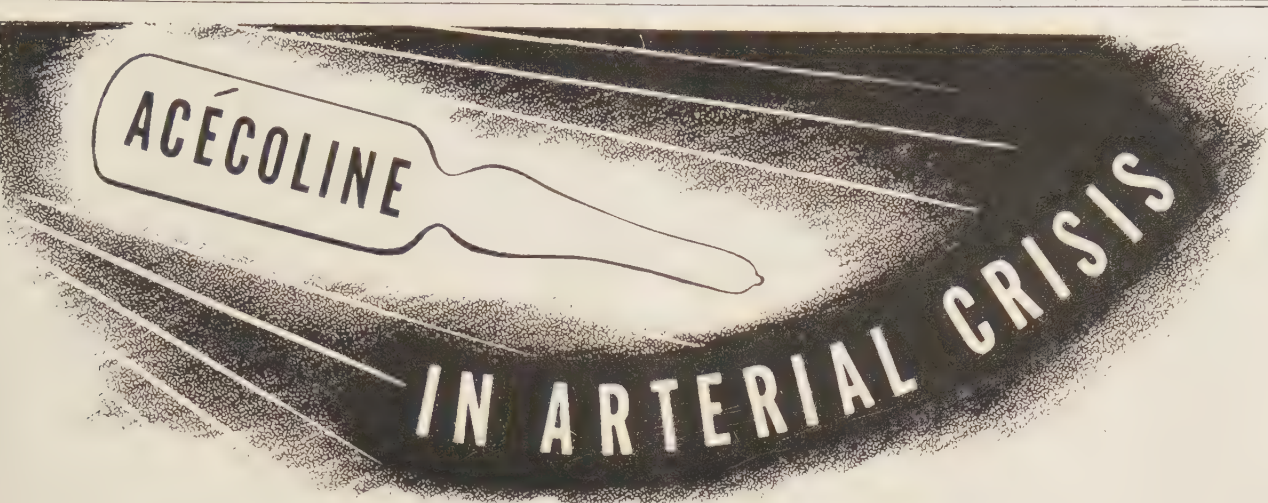
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Dr. Theodore G. Klumpp, president of the company, points out that under normal conditions the

need for atabrine in this country would be confined to southern sections where malaria is common. However, at the present time and until military and naval demobilization is completed, the antimalarial drug may be required everywhere in the United States.

Medical officers of our Armed Forces advise returning veterans, who have been in a malarious region, to continue suppressive treatment by taking atabrine (one tablet of 0.1 Gm. daily) for at least four weeks after exposure.

After an attack of vivax (tertian) malaria, in which relapses may follow cessation of suppressive treatment anywhere, in any climate, at any time, it is army medical advice that one tablet of atabrine should be taken daily for approximately three months.



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(Continued from page 624)

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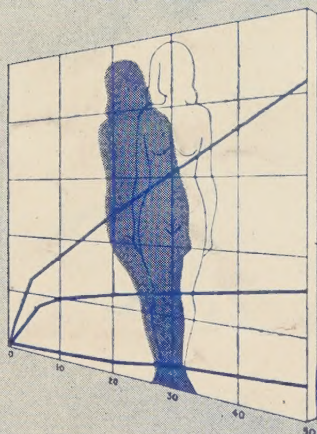
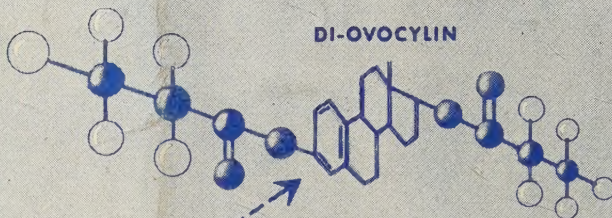
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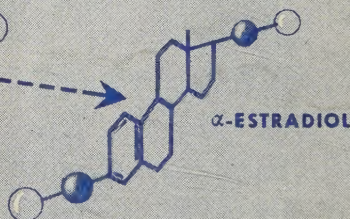
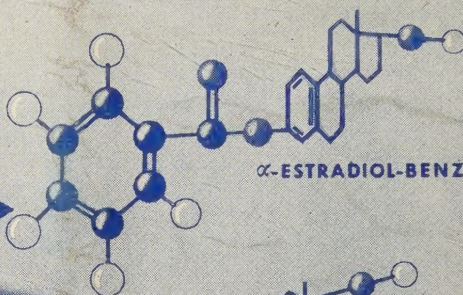
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